

SURVEY RESULTS

BACKGROUND

Since the initial survey of JAF alumni in 2004, a further 40 students have completed the JAF scheme, increasing the total number of fellows who have successfully completed and submitted their theses from 109 to 149 between 1988 and 2007 (Table 1). Fellows are drawn from 23 countries (Table 2), with high participation rates within the scheme from Indonesia, Papua New Guinea and the Philippines. This reflects the main project partners and majority investment of ACIAR.

Of the 149 JAF alumni, only 111 were surveyed. The 28 fellows who did not return to their home country were not captured within the survey, as the JAF scheme aims to build capacity within partner countries. Therefore, any fellows now residing in developed countries, or outside their home country, were seen to be less closely linked to the program's objectives. As was the case in 2004, the majority (67%) of fellows are male, with the number of successfully completed female fellows increasing only slightly in the past 4 years from 30% to 33%. Of the surveyed alumni, most (65%) have successfully completed a PhD (Table 3).

The survey received a high response rate (95%) from fellows, with those who did not respond either not able to be contacted or now retired (Table 4). There was an 85% response rate on director surveys, based on the total number of fellows surveyed. Directors who acted as a supervisor for more than one JAF alumnus were asked to complete separate surveys for each individual.



Dr Richard Pauku (Maraghoto Holdings Company Limited, Solomon Islands) acting as a consultant for a current ACIAR project in East New Britain, Papua New Guinea, which is looking into the propagation of galip nut (*Canarium sp.*). Photo: Richard Pauku

Table 1. Gender breakdown of total and surveyed former fellows

Gender	JAF total	JAF survey responses	JAF total (%)	JAF survey responses (%)
Male	100	72	67	68
Female	49	34	33	32
Total	149	106	100	100

Table 2. Country of origin of total and surveyed former fellows

Country of origin	JAF total	JAF survey responses	JAF total (%)	JAF survey responses (%)
Papua New Guinea and Pacific Island countries				
Papua New Guinea	19	16	12.8	14.4
Fiji	5	3	3.4	2.7
Kiribati	1	1	0.7	0.9
Solomon Islands	2	2	1.3	1.8
Tonga	4	3	2.7	2.7
Vanuatu	1	1	0.7	0.9
South-East Asia				
Indonesia	21	19	14.1	17.1
Vietnam	14	12	9.4	10.8
The Philippines	22	17	14.8	15.3
East Timor	1	1	0.7	0.9
Cambodia	2	2	1.3	1.8
Lao PDR	1	1	0.7	0.9
Thailand	11	11	7.4	9.9
Malaysia	7	4	4.7	3.6
South Asia				
India	7	5	4.7	4.5
Pakistan	4	2	2.7	1.8
Bangladesh	1	0	0.7	0.0
Sri Lanka	3	2	2.0	1.8
North Asia				
China	15	5	10.1	4.5
Nepal	2	1	1.3	0.9
Southern Africa				
South Africa	1	1	0.7	0.9
Kenya	3	1	2.0	0.9
Zimbabwe	2	1	1.3	0.9
Total	149	111	100^a	100^a

^a Total is rounded to 100%.

Table 3. Qualification undertaken and period of completion by surveyed former fellows

Qualification characteristics	JAF survey responses	JAF survey responses (%)
Course completed		
Graduate Certificate or Diploma	3	3
Masters degree	34	32
PhD	70	65
Course completed total	107^a	100
Year completed		
1988–90	6	6
1991–93	5	5
1994–96	10	9
1997–99	12	11
2000–02	24	23
2003–05	26	25
2005–07	23	22
Year completed total	106	101^b

^a The course completed total is slightly higher than the total number of surveys received from former fellows due to one fellow completing both Masters and PhD qualifications.

^b This total is not 100% due to rounding of individual figures.



Dr Boonrat Jongdee (left) from Ubon Ratchathani Rice Research Institute, Thailand. Dr Jongdee was participating in a field visit to the ACIAR–World Vision project on improving the reliability of rainfed, rice livestock-based farming systems in north-eastern Thailand. Photo: Boonrat Jongdee

Table 4. Survey response rates of fellows and directors by country

Country	Director surveys received	Former fellow surveys received	Response rate of directors (%)	Response rate of fellows (%)
Papua New Guinea and Pacific island countries				
Papua New Guinea	11 ^a	13	73	81
Fiji	2	3	66	100
Kiribati	1	1	100	100
Solomon Islands	2 ^a	2	100	100
Tonga	2 ^a	3	100	100
Vanuatu	1	1	100	100
South-East Asia				
Indonesia	19	19	100	100
Vietnam	12	12	100	100
The Philippines	16	17	94	100
East Timor	0	1	0	100
Cambodia	2	2	100	100
Lao PDR	0	0	0	0
Thailand	10	10	91	91
Malaysia	3	4	75	100
South Asia				
India	5	5	100	100
Pakistan	1	2	50	100
Sri Lanka	2	2	100	100
North Asia				
China	4	5	80	100
Nepal	1	1	100	100
Southern Africa				
South Africa	0	1	0	100
Kenya	N/A ^a	1	N/A	100
Zimbabwe	0	1	0	100

^a The number of available directors was slightly less due to three JAF alumni being self-employed.

EMPLOYMENT PROFILE

The majority of fellows (75%) have remained working for the organisation that released them to undertake the JAF scheme. Those who did not remain with the same institute had returned to work for their original employer initially, and then subsequently moved on due to either institutional instability or a lack of organisational structure that did not allow for promotion or retirement. Approximately three-quarters (73%) of former fellows have been with their current employer for more than 5 years (Figure 1). Directors displayed a greater level of employment mobility, with only 39% acting as director of the institute for more than 5 years (Figure 2). These results are slightly lower than in the 2004 survey, where 81% of former fellows had remained with their employer for more than 5 years. The number of fellows remaining with their original employer was relatively consistent between the 2004 (77%) and 2008 (75%) surveys.

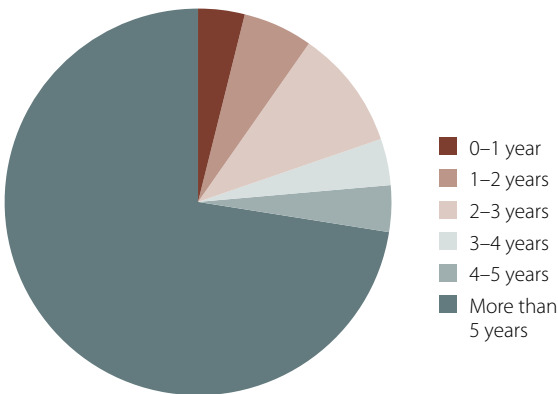


Figure 1. Former fellows: time with current employer

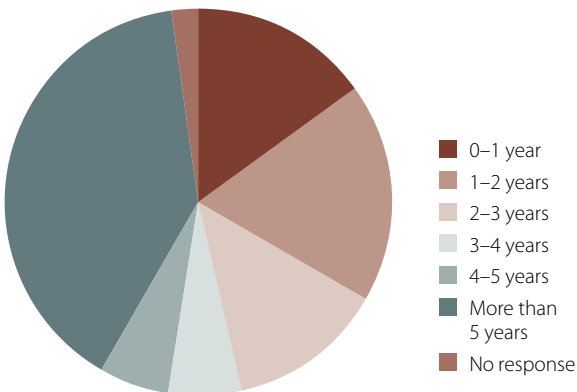


Figure 2. Institute directors: period as director

RELEVANCE AND VALUE OF THE ACIAR FELLOWSHIP

Fellows stated that studies undertaken through the JAF scheme were totally related or strongly related to both their previous employment (95%) and current employment (93%), a claim supported by the vast majority of institute directors (93%) (Figures 3 and 4). These results mirror the high degree of relevance reported by both fellows and directors in the 2004 survey. The types of skills applied by fellows in their current position include the ability to work as a team, technical methodologies and knowledge, experience in experimental design, research and design implementation, and the ability to critically analyse problems. The ability of fellows to apply this skill set, however, was often hindered by a lack of sufficient operating budget (47%) and administrative responsibilities (32%) (Table 5). These percentages have changed in comparison with those reported in the 2004 survey, with 56% and 23% recorded for the lack of operating budget and administrative responsibilities, respectively.

Directors indicated that the skills learnt by JAF alumni during postgraduate studies went beyond assisting fellows in their day-to-day roles and responsibilities, contributing highly to the overall performance of the organisation (Figure 4). Specifically, technical skills (73%), critical reasoning (57%) and English language skills (73%) were of great importance to the alumni's current position, with across-the-board consensus that skills learnt during the fellowship period were at least partly relevant or a little relevant (Figure 5). Directors reported that fellows were maintaining the skills attained through the JAF scheme through participation in seminars and conferences, teaching and supervision roles, and maintenance of contacts within Australian institutions.

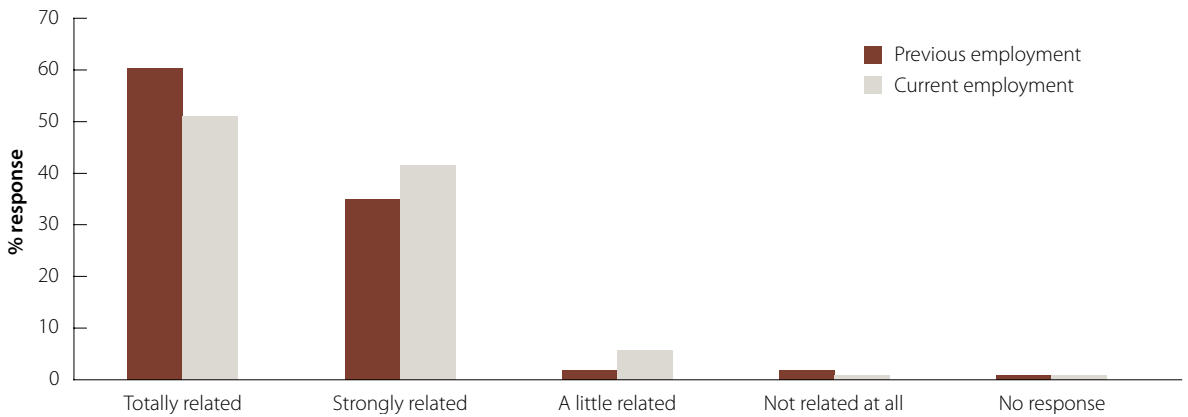


Figure 3. Former fellows: the relevance of postgraduate studies to previous and current employment

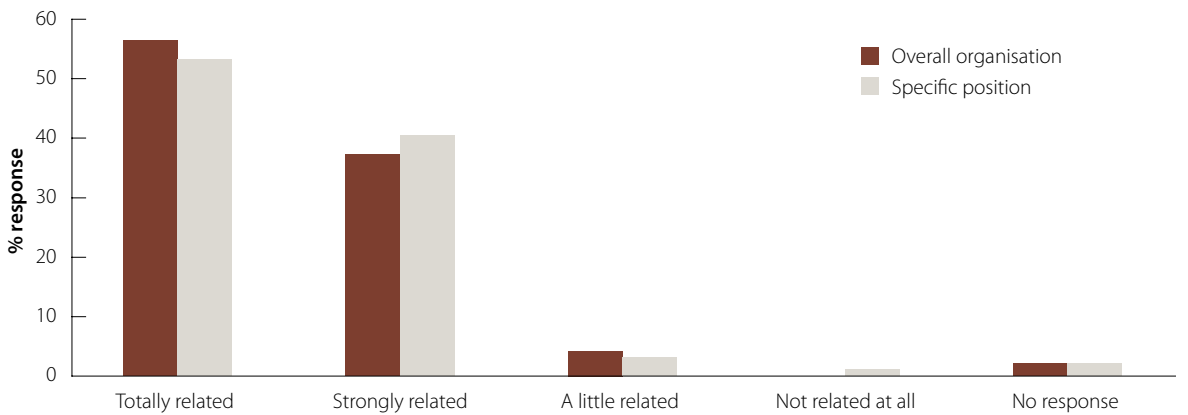


Figure 4. Institute directors' views: the relevance of fellowship training to overall organisation and specific position

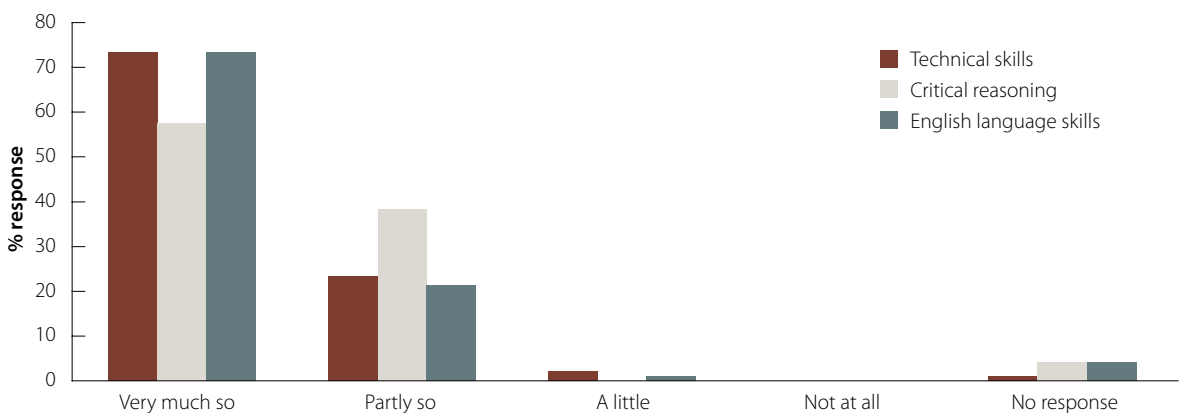


Figure 5. Institute directors' views: the extent to which the former fellow is using skills developed during their postgraduate studies

Table 5. Former fellows: factors that hindered use of postgraduate training on return

Hindering factor	Number of fellows affected	%
Lack of equipment	32	30
Lack of operating budget	50	47
Lack of access to up-to-date research information	33	31
Other responsibilities, e.g. administration	34	32
Management decision-making	24	23
None	26	25
Other	8	8

PASSING ON SKILLS AND KNOWLEDGE

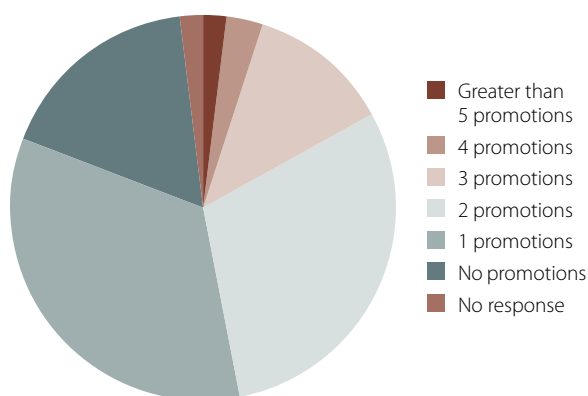
Fellows (99%) and institute directors (93%) were in strong agreement that the transfer of knowledge and skills, acquired as a result of postgraduate studies, was occurring at the fellows' place of employment. These skills were transferred to colleagues and junior staff through training, workshops and daily interactions with other staff. In the single instance where one fellow suggested that they were not able to transfer their knowledge and skills, no explanation was provided. Directors who indicated the lack of opportunity for fellows to pass on their knowledge suggested that this was due to the fellow being too senior to undertake training responsibilities and a lack of junior staff.

SUBSEQUENT LEADERSHIP BY FORMER FELLOWS

Since returning to their original employers, fellows have been recognised for their increased contribution to the workplace and improved skill set, as illustrated by 81% of all JAF alumni being promoted at least once (Figure 6). The majority of directors (78%) and fellows (85%) attributed this promotion to the skills and knowledge acquired by the JAF alumni during postgraduate studies (Table 6). This is relatively consistent with the results from the 2004 JAF survey. The slightly higher percentage of fellows receiving a promotion in 2008 (81%), compared with 78% in 2004, is due to a greater amount of time passing since completion of their studies, providing fellows with more time to demonstrate their skills.

Mirroring the proportion of fellows who have received a promotion, 81% of alumni currently supervise staff, representing a 24% increase in supervisory responsibilities of fellows since the award of their postgraduate degree. The majority (58%) of fellows supervise 1–10 staff members, holding positions as team leaders, principal researchers and senior scientists (Figure 7). A small percentage (5%) supervise more than 100 staff members, and one fellow in China is accountable for 1,000 staff. Some are now executive directors of national agriculture departments and other large agricultural institutes. Directors stated that the skills obtained by fellows—technical capabilities, critical reasoning and English language proficiency—contributed to them achieving management positions.

In addition to supervision of staff, 70% of fellows are involved in leadership of research projects. In many cases these projects involve international partners and require strong interpersonal and communication skills. JAF alumni have also maintained strong ties with ACIAR, with 59% of fellows participating in ACIAR projects or other ACIAR activities since returning to their home country.



FUTURE EMPLOYMENT AND STUDY INTENTIONS

JAF alumni are largely (77%) not considering career changes following completion of the JAF scheme. Of the 22% who indicated that they were thinking about a career change, several were considering teaching positions where they felt a better contribution could be made to the community. Interestingly, the 2004 survey demonstrated less career stability, with 30% of fellows considering a career change. Many fellows (64%) are currently considering further study, a similar response to the 2004 survey.

STUDY EXPERIENCE IN AUSTRALIA

Fellows unanimously expressed high satisfaction regarding their overall study experience in Australia (Figure 8). The high degree of satisfaction is attributed, in part, to the fact that 88% of fellows were able to enter their program of choice. The 11% who were not able to enter their desired program stated that this was primarily due to their connection with particular ACIAR projects, meaning that they were unable to fully dictate their chosen course or host institution for postgraduate studies. One fellow from PNG indicated that a change in direction, towards the social sciences, had led to a more highly desirable skill set, and resulted in the fellow being regularly approached by national and international project agencies for consultancy advice.

A similar, across-the-board response (99%) was also recorded regarding satisfaction on the quality and amount

Figure 6. Former fellows: number of promotions since returning from Australia (% of responses)

Table 6. Former fellows: relation between job promotion and skills obtained from fellowship		
Degree of relation	Number of fellows	%
Totally related	20	19
Strongly related	61	58
A little related	9	8
Not related at all	6	6
No response	10	9
Total	106	100

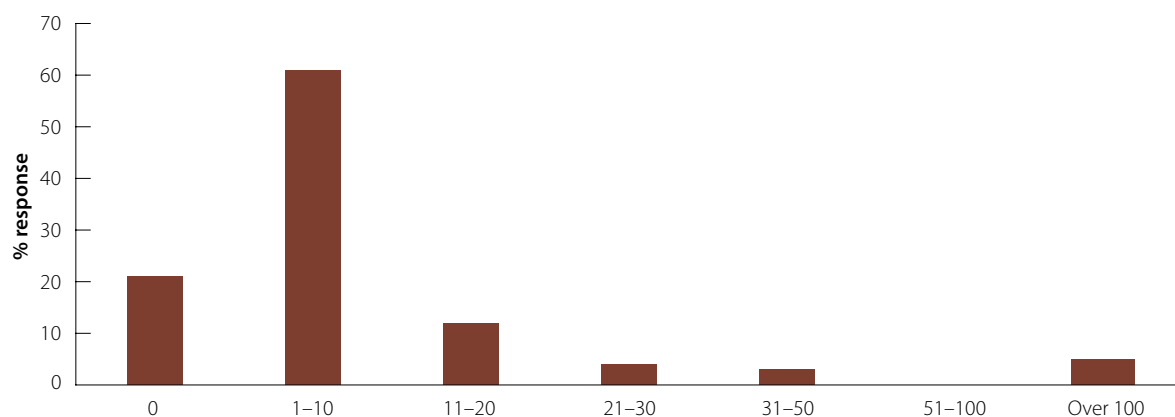


Figure 7. Former fellows: number of staff currently supervised

of support received from the relevant Australian university. A substantial number of fellows (95%) also recorded either extreme or reasonable satisfaction in regard to the quality and amount of support received from their Australian supervisor. Two fellows recorded dissatisfaction regarding their supervisor, both stating that their supervisor was not approachable, did not set aside time to discuss their projects and was consistently 'too busy'. This was not, however, a sentiment shared by many fellows, as 92% stated that they felt comfortable seeking assistance from their supervisor. Additionally, 88% of fellows have remained in contact with their Australian supervisors. Of the 12% who have lost contact, several stated that this had followed the retirement of their Australian supervisor.

The vast majority of directors (98%) were extremely or strongly satisfied with the degree undertaken by the fellow, with the remaining 2% failing to respond to the survey question (Figure 9). Similarly, when comparing the Australian degree with those obtained in other countries, 96% of directors were extremely or strongly satisfied with the Australian standard.

Overall, when comparing the degree of satisfaction of the directors and fellows with the JAF scheme, similar results were determined in the 2004 and 2008 surveys. Directors and fellows maintained an almost unanimous level of satisfaction with the postgraduate program.

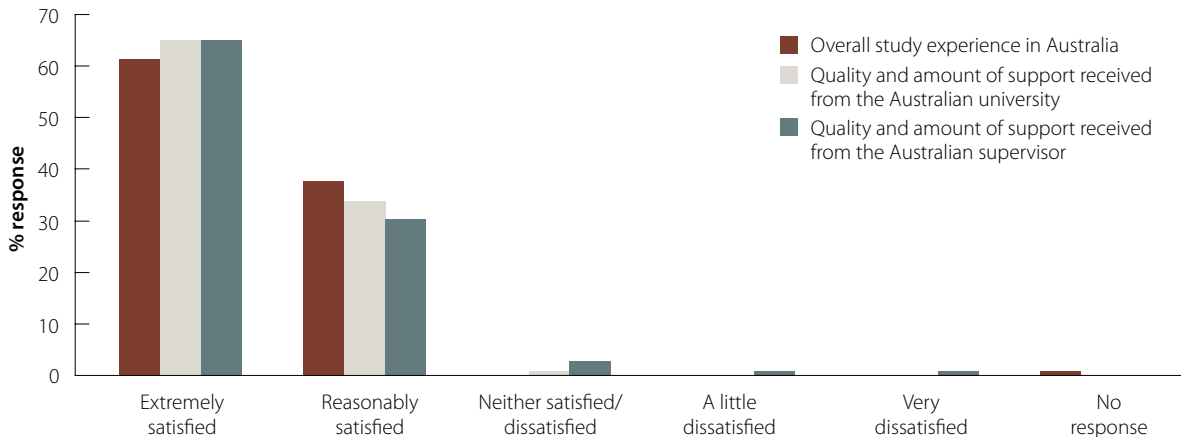


Figure 8. Former fellows: satisfaction with study experience in Australia



Figure 9. Institute directors: overall level of satisfaction

ENGLISH LANGUAGE

Just under half (47%) of the fellows had no difficulty with English, including before arriving in Australia, in order to meet the language requirements for enrolment (Table 7) and throughout the postgraduate program (Table 8). However, 20% of fellows experienced occasional to regular difficulty with English language throughout their postgraduate studies (Table 8). Fellows did not provide a reason for their language difficulties or explanation of what they considered could be done in order to rectify the issue. As identified in the comments provided by directors, English language skills learnt during postgraduate studies continue to be very important in the day-to-day position of fellows and remain one of the key skills acquired during postgraduate study.

Table 7. Former fellows: difficulty with English prior to fellowship

Degree of difficulty	Number of fellows	%
No difficulty at all	50	47
One or two problems	21	20
Occasional difficulty	21	20
Regular difficulty	11	10
Extreme difficulty	2	2
No response	1	1
Total	106	100

Table 8. Former fellows: difficulty with English after arrival in Australia

Degree of difficulty	Number of fellows	%
No difficulty at all	50	47
One or two problems	33	31
Occasional difficulty	15	14
Regular difficulty	6	6
Extreme difficulty	1	1
No response	1	1
Total	106	100

SOCIAL EXPERIENCE IN AUSTRALIA

Approximately half (48%) of all fellows had their family accompany them to Australia during their period of study. Of all fellows, 41% were also accompanied by children, with the majority accompanied by one or two children (Table 9). Fellows who were accompanied by either their spouse or their spouse and children reported that it provided them with domestic and social support in order for them to concentrate on and complete their studies within the given time frame. Fellows also stated that bringing family members provided other benefits, such as allowing their children to attend Australian schools, which enabled them to improve their English language skills. In one instance a Tongan fellow indicated that it was during his postgraduate studies that his son learnt how to play rugby, which has since formed the basis of his son's career.

Just less than three-quarters (73%) of fellows had no difficulty finding suitable accommodation during their period of study. The majority (68%) of JAF alumni did not undertake paid employment during their postgraduate study. Instead, 85% of spouses who accompanied the fellows carried out paid employment in order to supplement the stipend provided by the fellowship scheme. Those fellows who did undertake paid employment were engaged, on average, for 12 hours per week and typically worked in either hospitality (e.g. waitressing, cleaning) or as a research/technical assistant with their university.

Table 9. Number of children who accompanied former fellows and their spouses to Australia

Number of dependent children	Number of fellows	%
0	62	59
1	14	13
2	13	12
3	10	9
4	6	6
5	0	0
>5	1	1
Total	106	100

VIEWS ON THE ACIAR FELLOWSHIP— BENEFITS

The majority (95%) of fellows felt that completing the JAF scheme was a beneficial experience and met their expectations, namely the development of skills and knowledge and the provision of financial support to undertake postgraduate studies. Of the fellows who stated that the fellowship did not meet their expectations, several implied that the scholarship met some but not all expectations. Two respondents stated that, while it was beneficial to obtain the higher qualification, this knowledge has not been applied since returning to their home country. It was interesting to note that both these fellows stated that the English skills and professional contacts were beneficial aspects of the fellowship, indicating that, while direct technical skills were not utilised within their current employment, they have benefited in other areas. A further three fellows who stated that the JAF scheme did not meet their expectations indicated that this was a result of failure to obtain their desired PhD or Masters degree.

When prompted to identify the most beneficial experience of the fellowship, alumni identified increased skills and knowledge, an improved network of professional contacts, exposure to Australian culture and the international science arena, and a greater confidence in the development and implementation of individual ideas.

Fellows were asked to rank benefits both for themselves and for their institutes. As in the 2004 survey, those benefits ranked as extremely or very significant for individuals were also ranked as significant for institutes. Fellows indicated that the major benefits to individuals and institutes were developed research skills, skills and knowledge gained from the degree, developed writing skills, and greater flexibility and openness to new ideas (Tables 10 and 11).

Institute directors and fellows identified similar areas as important, although directors assigned a lower level of significance to these benefits. Directors identified the major benefits to institutes as specific skills and knowledge from the degree (79%), greater openness to ideas (74%), research experience and scientific methods (72%) and professional contacts (71%) (Table 12).



Dr Manolito C. Bulaong (Bureau of Postharvest Research and Extension, the Philippines) with the set-up of a machine vision system for corn quality analysis that he developed for the National Food Authority. Photo: Manolito Bulaong

Table 10. Former fellows: main personal benefits from the ACIAR fellowship

Benefit	Extremely significant	Very significant	Not significant	No response	Significance (extremely & very) (%)
Skills and knowledge gained from degree	70	21	1	9	86
Improved English language skills	30	36	2	8	62
Cultural experience	26	37	2	10	59
Professional contacts	32	41	1	10	69
More open to new ideas / more flexibility	42	45	0	9	82
People skills / teamwork	30	35	1	10	61
New career opportunities	31	29	4	12	57
Developed research skills	64	31	0	8	90
Developed writing skills	47	42	0	10	84
Developed computer skills	19	38	5	13	54
Other	3	1	0	102	4

Table 11. Former fellows: main benefits to the institute or home country from the ACIAR fellowship

Benefit	Extremely significant	Very significant	Not significant	No response	Significance (extremely & very) (%)
Skills and knowledge gained from degree	59	28	1	11	82
Improved English language skills	29	34	3	12	59
Professional contacts	38	32	3	12	66
More open to new ideas / more flexible	34	42	0	12	72
Leadership / people skills / teamwork	29	41	0	12	66
Developed research skills	45	42	1	10	82
Developed writing skills	36	43	1	13	75
Developed computer skills	17	33	6	15	47
Better able to attract R&D funding	19	35	4	13	51
Can influence national policy	11	22	12	16	31
Other	2	0	1	103	2

Table 12. Institute directors: main benefits for the organisation or home country as a result of staff member doing the higher degree in Australia

Benefit	Extremely significant	Very significant	Not significant	No response	Significance (extremely & very) (%)
Specific skills/knowledge from the degree	44	30	1	8	79
Research experience / scientific method	44	32	3	8	72
Status of the qualification	28	37	1	10	69
Passing on skills and knowledge to other staff and or students	23	40	1	9	67
English language skills	33	33	0	10	70
Ability to attract research funding for the organisation	16	32	6	12	51
People/cross-cultural skills	10	41	3	12	54
Professional/scientific contacts made	25	42	1	10	71
More open to new ideas	25	45	0	11	74
Can influence national policy	8	17	13	12	27
Other	2	0		92	2

VIEWSON THE ACIAR FELLOWSHIP—NEGATIVES

As discussed earlier, fellows identified no major issues in finding accommodation or being accompanied by family members, and expectations of the fellowship scheme were largely met. The major negative identified by fellows was missing family and friends in their home country (33%) during postgraduate studies in Australia (Table 13).

The vast majority (96%) of directors stated that there was no detrimental impact of the fellowship scheme on their organisation (Figure 10). Of the remaining directors, 3% failed to give a response to the survey question, and one director stated that his access to the employee was reduced through the fellow relocating to Australia over the postgraduate study period. Despite there being no lasting detrimental impact, 67% of directors identified that their institute experienced at least some level of disruption. This result is not unexpected. While directors were asked to rank the main negatives of the JAF scheme for their institution, this question was answered particularly poorly, and therefore no accurate reflection on major negatives for institutes can be identified.

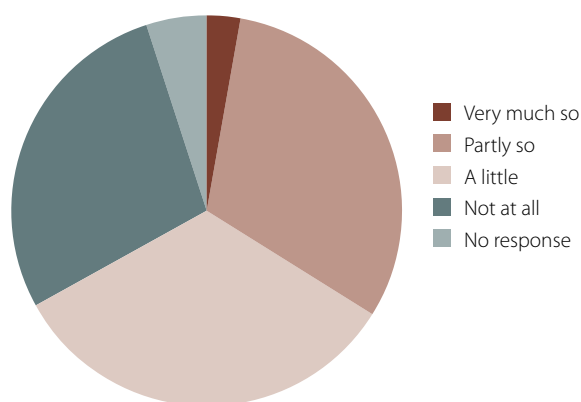


Figure 10. Institute directors: extent of disruption to institute work plans from fellows' absence (% of responses)

Table 13. Former fellows: main negatives of undertaking the fellowship

Negatives associated with JAF	Extremely significant	Very significant	Not significant	No response	Significance (extremely & very) (%)
Out of touch with work colleagues / job	4	6	46	8	9
Miss family and friends	18	17	16	7	33
Culture very different	4	11	31	11	14
Financial difficulty	3	3	44	10	6
Other	0	0	2	104	0

SUGGESTIONS FOR IMPROVEMENT

Fellows were given the opportunity to identify areas for improvement within the JAF scheme. Many fellows suggested no change to the current operational arrangements.

However, several fellows suggested increases to the stipend, with some indicating that the financial support was often not sufficient to meet living expenses. Some fellows suggested that determination of the stipend value should be based upon where the fellow is sent to study, as costs when living in Canberra or Sydney, for example, are much higher than in rural locations such as Armidale.

A few fellows suggested that allowances were not sufficient to allow them to return to their home country for fieldwork and data collection purposes. There is obviously some confusion in these cases as the JAF awards provide up to three field trips home to carry out relevant data collection over the scholarship period. One fellow stated that, while additional travel grants were often offered by Australian universities, these were unable to be accessed by the fellow due to their international student status. Similar issues were also faced when fellows attempted to access funding from their home-country institutions and universities.

In addition, fellows stated that imperfect English language skills often restricted their ability to participate adequately in postgraduate studies and employment opportunities, and therefore they suggested that ACIAR establish additional training courses to support English language teaching.

Some fellows requested that a larger proportion of postgraduate studies should be able to be undertaken within the home country, to ensure that the research project is more relevant for the fellow and of greater benefit to the home country. At present the JAF regulations allow up to 50% of the enrolment period to be spent in the home country. Many Australian universities require that, for a postgraduate degree to be awarded from their institution, the student must spend 50% or more of their enrolment period in Australia. The view of the ACIAR Training Committee is that this is an appropriate requirement.

There was strong support for the JAF follow-up grant scheme, which has enabled several fellows to undertake a research project upon return to their home country. Greater



Dr Jesmond Sammut (the University of New South Wales) and Dr Akhmad Mustafa (Research Institute for Coastal Aquaculture, Indonesia) on Akhmad's graduation day.
Photo: Jesmond Sammut

engagement and communication was also suggested by several JAF alumni in the context of a better network following their return to their home country. This network could also be of benefit to future fellows about to go to Australia. Former fellows would be able to help those students about to commence studies in Australia with issues such as what to expect in relation to language and cultural barriers and any relevant accommodation advice before they depart.

Another area for improvement of the current scheme was more opportunities for professional engagement in Australia. Fellows suggested that the chance to become involved with a company, as part of an internship program during their fellowship in Australia, would be a particularly valuable experience. Fellows indicated that viewing how skills learnt within the postgraduate environment may be applied within the workplace would add a more practical focus to their theoretical studies.

Directors were largely in agreement with fellows, suggesting that the most important thing was the continuation of the JAF scheme, particularly through a greater number of available scholarships (Table 14). Directors indicated that they desired JAF postgraduate studies to be of greater relevance to the developing country (67%), with a larger amount of fieldwork occurring within the fellow's home country (64%).



Dr Nestor Gregorio (Visayas State University, the Philippines) using an infra-red gas analyser to measure the rate of photosynthesis of *Gmelina arborea* seedlings.
Photo: Nestor Gregorio

ECONOMIC IMPACTS

One of the major criticisms of surveys as an evaluation tool is that there are often no accompanying figures to determine an actual dollar value on investment. It is widely acknowledged that capacity building and training should be an inherent part of any social and economic development⁴; however, the extent to which capacity-building exercises should be funded is often not quantified due to insufficient economic data.

While this survey does not attempt to provide economic figures, as the formulation of the evaluation framework prohibits such an analysis, it is important to highlight values that were obtained in a previous ACIAR economic assessment of capacity-building activities.

In 2007 a report was produced by ACIAR detailing the impact assessment of capacity-building activities within ACIAR projects⁵. Of particular interest is the study regarding the pigeonpea improvement project, which involved the collaboration of the University of Queensland (UQ) and the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) in India. This project included long-term visits to Australia by three ICRISAT scientists and, in a similar fashion to studies undertaken by JAF alumni, 3 years of postdoctoral studies by Dr K. B Saxena in Australia.

While no genetically improved varieties of pigeonpea were produced as a direct result of the ACIAR project, subsequent research involving the Indian collaborating partners identified new, higher yielding short-duration pigeonpea (SDPP) varieties. The ACIAR and UQ investments were considered to have been strong contributors to the research outcomes. Evaluation of the pigeonpea project by external reviewers stated that the stimulation of innovative scientific research was the major benefit of the project, as this provided the necessary skills and creativity within in-country scientists to deal with issues as they arose. This was supported by Dr Saxena's research, in which an improved genotype selection and breeding methods skill set, the ability to remain abreast of international research developments, and exposure to a 'new' scientific culture were responsible for the improved time to adoption of SDPP in India.

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- 4 World Bank 2006. Capacity development in practice: dimensions, capacity resource centre. At <<http://go.worldbank.org/EQ9054D7MO>>
 - 5 Gordon J. and Chadwick K. 2007. Impact assessment of capacity building and training: assessment framework and two case studies. ACIAR Impact Assessment Series 44. ACIAR: Canberra.

Table 14. Institute directors: suggestions for improvement of the ACIAR fellowship scheme

Suggested improvement	Extremely significant	Very significant	Not significant	No response	Significance (extremely & very) (%)
More scholarships	59	13	3	14	77
More fieldwork in home country	36	24	0	14	64
Courses/research to be more relevant to particular developing country	38	25	0	18	67
More communication needed by students during the course	25	27	0	16	55
More communication needed by ACIAR during the course	20	26	0	17	49
More opportunity to influence the content of the course or research project	25	27	0	13	55
No suggestions	1	0	12	81	1
Other	2	0	0	92	2

The report attributed \$67.6 million of \$131.8 million in total project benefits to capacity-building activities. The evaluation, which was limited to the postdoctoral fellowship undertaken by Dr Saxena, was based on the conclusion that capacity-building exercises contributed strongly to the overall success of the project. Benefits were ascribed to smallholders (major beneficiaries), individuals and the participating institutes, whose overall benefits in monetary terms were relatively small.

Based on the high return on investment observed in this example, it can be assumed that the return on investment and financial benefits from postgraduate studies by former fellows would likewise be quite high. Indications from the JAF alumni success stories (see pp. 9–14), where fellows have contributed to improved waste management, crop and forestry germ plasm, and country policy, confirm this assumption.

EVALUATION OF THE PIGEONPEA PROJECT BY EXTERNAL REVIEWERS STATED THAT THE STIMULATION OF INNOVATIVE SCIENTIFIC RESEARCH WAS THE MAJOR BENEFIT OF THE PROJECT, AS THIS PROVIDED THE NECESSARY SKILLS AND CREATIVITY WITHIN IN-COUNTRY SCIENTISTS TO DEAL WITH ISSUES AS THEY AROSE.

CONCLUSIONS

The aim of the survey described in this report was to determine the impact of the John Allwright Fellowship scheme on individual alumni and their home-country institutes. A review and a survey of the scheme were conducted in 1998 and 2004, and this current survey represents a continuation of the evaluation process. It was hoped that canvassing of all the 149 JAF alumni who studied in Australia over the period from 1987 to 2007 would enable an improved evaluation of the impacts of the scheme over time. The aim of including recent graduates was to provide an indication as to whether processes adopted since the last survey have improved the experience of students.

Three-quarters of the fellows surveyed have remained working with the institution that released them for the

fellowship, and 73% of fellows have been with their current employer for more than 5 years. This indicates that fellows have a strong opportunity to build capacity within their home institution or current place of employment as they hold leadership positions for a sufficient period of time to have an impact upon their organisation and other employees. Fellows are almost unanimously seizing this chance to transfer knowledge and skills through training, workshops and daily interactions with staff. This high level of capacity building by fellows was confirmed by 93% of directors, and demonstrates that one of the cornerstones of capacity building and transfer of knowledge and skills is occurring when fellows return to their home country.

Fellows indicated the high degree of relevance of their postgraduate studies in relation to their current



Dr Renuka Shrestha (Nepal Agricultural Research Council) with Neil Turner (CSIRO Plant Industry, Australia) and her team during a field visit to Nepal. Photo: Renuka Shrestha

FELLOWS ALMOST UNIVERSALLY (99%) EXPRESSED EXTREME OR REASONABLE SATISFACTION REGARDING THEIR OVERALL STUDY EXPERIENCE IN AUSTRALIA.

employment and previous employment at 93% and 95% respectively. Directors specified that technical skills (73%), critical reasoning (57%) and English language skills (73%) acquired during the fellows' postgraduate studies were of high importance. This importance and relevance of the acquired skill set is evidenced by 81% of all fellows receiving at least one promotion, and is supported by both fellows (85%) and directors (78%) attributing promotions among the JAF alumni to skills and knowledge learnt during the course of their postgraduate studies. This strongly indicates that, in line with the objectives of the JAF scheme, obtaining higher qualifications assists alumni with career progression and, it is assumed, concurrent salary increases.

The promotions obtained by fellows are resulting in JAF alumni holding leadership positions within their institutions from the level of team leader or principal researcher, where they are responsible for between 1 and 10 staff members, up to executive roles such as the vice-president of a university, where they may be accountable for more than 1,000 staff. It is through these leadership positions that JAF alumni can continue to transfer knowledge and skills to their peers and colleagues, and in some cases (31%) influence national policy. As is widely acknowledged, education is an important tool in development policy, so it is encouraging to observe JAF alumni in positions of national importance where they are able to make well-informed decisions based on their exposure to analytical thinking and processes.



Dao Ngoc Quang (Forest Science Institute of Vietnam) carrying out ACIAR work on insect resistance and silvicultural control of shoot borer (*Hypsipyla robusta*) at Toona Plantations in Derrier Logging Area, Imbil State Forest, Queensland, Australia.
Photo: Dao Ngoc Quang

The majority (77%) of fellows are not considering a career change; however, many (64%) have indicated a desire to undertake further study. This demonstrates recognition by fellows of the importance of learning new skills to assist in career development and progression, reflecting a positive postgraduate study experience. Fellows almost uniformly (99%) expressed extreme or reasonable satisfaction regarding their overall study experience in Australia, with a high degree of satisfaction in regards to support received from their university (99%) and their Australian supervisor (95%). Despite this, comments made by a minority of fellows were concerning in relation to the lack of support received. ACIAR will endeavour to ensure that, in the small number of cases where Australian supervisors do not have sufficient time to assist students, alternative placements are made.

English language issues may represent an area of concern for fellows, as almost half had some problems with English, both before arriving in Australia and during the course of postgraduate studies. Several fellows recommended that ACIAR provide additional language training courses prior to commencing the degree. Currently, ACIAR provides up to 9 months of full-time English language training before the commencement of studies.

Approximately half (48%) of the fellows surveyed were accompanied by family during their postgraduate studies, indicating that this provided valuable social support in order to successfully complete the program. While the majority of alumni (68%) did not undertake paid employment during the course of the degree, financial pressures were identified as a concern, with a large number of fellows indicating that an increase in stipend is required. Of concern is that 27% of fellows found difficulties in locating suitable accommodation. Given the current rental climate within major Australian cities, this outcome is not unexpected, and ACIAR is aware that university support staff should continue to do their best to ensure that housing assistance is provided to fellows on their arrival.

Both directors and fellows indicated that the JAF scheme was beneficial on both an institutional and an individual basis, stating the major benefits as knowledge and skills (research and writing) acquired during the degree, flexibility and openness to new ideas, and development of a network of professional contacts. The main negative identified by 33% of fellows related to missing family and friends, which is not unexpected given that they are conducting their study in an overseas country. The fact that this was not of concern to a larger proportion of fellows further demonstrates the strong level of support received.

The majority (77%) of directors indicated that the most important recommendation for the JAF scheme was the continuation of the program with possible further expansion of the number of scholarships awarded. This was largely supported by fellows and, in fact, many alumni indicated that no change was required to the current operations of the JAF scheme. However, as previously discussed (see p. 31), an increase in the stipend and provision of additional English language courses were recommended as priorities for improvement.

The true nature of the improvements and overall changes that have occurred within the last 4 years cannot be accurately assessed as the survey canvassed not only those fellows who have completed their degree over that period but also alumni who have participated in the scheme since its inception. However, in totality the fellowship continues to be an overwhelmingly positive experience for individuals and institutions, successfully building capacity within ACIAR's partner countries. While some trends indicate emerging issues caused by financial pressures, these represent a problem for only the minority of alumni. ACIAR will continue to strive to develop and improve the program for the benefit of both fellows and their home countries.

APPENDIXES

1 QUESTIONNAIRE FOR FORMER ACIAR FELLOWSHIP STUDENTS

Name:

Date of birth:

Country of origin:

Course completed in Australia (please circle): PHD / MASTERS / DIPLOMA

Year completed:

YOUR CURRENT WORK

1. Current employer:

2. Current position:

3. How long have you worked for your current employer?

- 0–1 year
 1–2 years
 2–3 years
 3–4 years
 4–5 years
 More than 5 years

4. What are the main responsibilities of your position?

5. Is your current employer the one who released you from work to undertake the ACIAR fellowship?

- YES NO

If no, why did you not return to the organisation you worked for when you received your award?

6. Was the ACIAR fellowship course relevant to your employment at the time?

Totally relevant
 Strongly relevant
 A little relevant
 Not at all relevant

7. Is the ACIAR fellowship study relevant to your work now?

Totally relevant
 Strongly relevant
 A little relevant
 Not at all relevant

8. If yes, what knowledge from your ACIAR fellowship do you apply and how often?

9. Do you pass on the knowledge and experiences gained from your study to others?

YES NO

How?

10. Have you been promoted since you returned from Australia?

YES NO

If yes, how many promotions have you had since you returned?

11. Was your promotion due to the skills and knowledge that you gained from your Australian studies?

Yes, totally
 Yes, strongly
 Yes, a little
 Not at all

If yes, how did the ACIAR fellowship assist you to obtain a more senior position?

12. Do you currently supervise any staff?

YES NO

If yes, how many?

13. Did you supervise any staff prior to the ACIAR fellowship?

YES NO

If yes, how many?

14. Do you currently lead any research projects?

YES NO

15. Have you participated in any ACIAR projects or activities since finishing your fellowship? YES NO

16. Are you thinking about a change in career as a result of undertaking the ACIAR fellowship?

YES NO

If yes, why?

- Not using skills in current job
- No opportunities for promotion
- To get better salary
- To broaden experience
- Other (please specify)

17. What factors (if any) have made it difficult for you to use your postgraduate training on return?

- Lack of equipment
- Lack of operating budget
- Lack of access to up-to-date research information
- Other responsibilities (e.g. administration)
- Management decision-making
- None
- Other (please specify)

YOUR STUDY

18. Were you able to enter into the postgraduate program in Australia of your choice?

YES NO

If no, please explain.

19. Are you thinking about doing any further study?

YES NO

If yes, please specify.

20. Did you feel comfortable in seeking academic advice from your Australian supervisor?

YES NO

If no, please explain.

21. Have you stayed in contact with your Australian supervisor(s) since you returned?

YES NO

22. How would you rate your overall experience studying in Australia?

Extremely satisfied
 Reasonably satisfied
 Neither satisfied/dissatisfied
 A little dissatisfied
 Very dissatisfied

23. How would you rate your satisfaction with the quality of support from the Australian university?

Extremely satisfied
 Reasonably satisfied
 Neither satisfied/dissatisfied
 A little dissatisfied
 Very dissatisfied

24. How would you rate your satisfaction with the quality of support from your Australian fellowship supervisor(s)?

Extremely satisfied
 Reasonably satisfied
 Neither satisfied/dissatisfied
 A little dissatisfied
 Very dissatisfied

25. BEFORE ARRIVING IN AUSTRALIA, how much difficulty did you have with the English language requirements for enrolment in your degree?

No difficulty at all
 One or two problems
 Occasional difficulty
 Regular difficulty
 Extreme difficulty

26. AFTER YOU ARRIVED IN AUSTRALIA, how much difficulty did you have overall with the English language required to do your degree?

No difficulty at all
 One or two problems
 Occasional difficulty
 Regular difficulty
 Extreme difficulty

YOUR SOCIAL ENVIRONMENT / GENERAL

27. Did you have paid employment during your time in Australia? YES NO

If yes, describe the work you did.

How many hours a week did you work at the paid job?

28. Did your spouse and family accompany you to Australia for your ACIAR fellowship?

YES NO

If yes, how many children came?

What advantages did this have?

What difficulties did this create?

Did your spouse work while you undertook your postgraduate study?

YES NO

29. Did you have difficulties in finding suitable and affordable accommodation in Australia?

YES NO

30. What was the most beneficial experience of your ACIAR fellowship in Australia?

31. Overall, did the ACIAR fellowship meet your expectations?

YES

How?

NO

Why?

32. What were the main benefits to you PERSONALLY of the ACIAR fellowship?

Score 1–5 (5 = extremely significant, 1 = not significant)

- Skills and knowledge gained from degree
 - Improved English skills
 - Cultural experience
 - Professional contacts
 - More open to new ideas / more flexible
 - People skills / teamwork
 - Opened up new career opportunities
 - Developed research skills
 - Developed writing skills
 - Developed computer skills
 - Other (please describe)
-

33. What were the main benefits to your INSTITUTE of the ACIAR fellowship?

Score 1–5 (5 = extremely significant, 1 = not significant)

- Skills and knowledge gained from degree
- Improved English language skills
- Professional contacts
- More open to new ideas / more flexible
- Leadership / people skills / teamwork
- Developed research skills
- Developed writing skills
- Developed computer skills
- Can better attract R&D funding
- Can influence national policy
- Other (please describe)

34. What were the main negatives of undertaking the ACIAR fellowship?

Score 1–5 (5 = extremely significant, 1 = not significant)

- Out of touch with work colleagues / job
- Miss family and friends
- Culture very different
- Financial difficulty
- Other (please describe)

35. List your major achievements since returning from the ACIAR fellowship program.

36. Do you have any suggestions for improving the ACIAR fellowship program?

2 QUESTIONNAIRE FOR CURRENT INSTITUTE DIRECTORS

Name of ACIAR fellowship awardee:

Name of institute director:

Position:

Organisation:

1. How long have you been the director of the former fellow's institute?
- 0–1 year
 1–2 years
 2–3 years
 3–4 years
 4–5 years
 More than 5 years
-

2. Are you the former fellow's direct supervisor?
- YES NO
- If not, please provide the name and position title of the former fellow's direct supervisor.
-

3. Did the former fellow work for your organisation when they commenced the ACIAR fellowship?
- YES NO DON'T KNOW
-

4. Are the skills and knowledge acquired by the former fellow through their studies in Australia relevant to your organisation?
- Totally related
 Strongly related
 A little related
 Not at all
-

5. Are the skills and knowledge acquired by the former fellow through their studies in Australia utilised in their current job?
- Totally related
 Strongly related
 A little related
 Not at all
-

6. Has the former fellow been promoted due to the ACIAR fellowship?
- YES NO
-

7. Does the former fellow currently lead any research projects?
- YES NO
-

8. Does the former fellow have the opportunity to pass on acquired knowledge to others in the workplace?

YES NO

If yes, how is this done?

If no, why not?

9. Rank your satisfaction with the postgraduate degree the former fellow undertook in Australia.

- Extremely satisfied
- Reasonably satisfied
- Neither satisfied/dissatisfied
- A little dissatisfied
- Very dissatisfied

10. Rank your impression of the training the former fellow received in Australia compared with staff trained in postgraduate degrees in other countries.

- Extremely satisfied
- Reasonably satisfied
- Neither satisfied/dissatisfied
- A little dissatisfied
- Very dissatisfied

11. To what extent is your staff member using the specific technical/practical skills and knowledge acquired through their studies in Australia in their current job?

Use of specific technical skills

- Very much so
- Partly so
- A little
- Not at all

Use of critical reasoning

- Very much so
- Partly so
- A little
- Not at all

Use of English skills

- Very much so
- Partly so
- A little
- Not at all

Other (please comment)

12. How has the former fellow maintained and developed these skills after returning from Australia?

13. Did the former fellow's studies in Australia contribute to promotion to a leadership or management position?

YES NO

14. To what extent was the work of your organisation disrupted by the former fellow's absence in Australia?

Very much so
 Partly so
 A little
 Not at all

15. What are the main benefits for your organisation as a result of your staff member doing the higher degree in Australia?

Score 1–5 (5 = extremely significant, 1 = not significant)

- Specific skills/knowledge from the degree
- Research experience / scientific method
- Status of the qualification
- Passing on skills and knowledge to other staff and/or students
- English language skills
- Ability to attract research funding for the organisation
- People/cross-cultural skills
- Professional/scientific contacts they made
- More open to new ideas
- Can influence national policy
- Other (specify)

16. What are the main negatives for your organisation as a result of the student doing the course in Australia?

Score 1–5 (5 = extremely significant, 1 = not significant)

- Project not relevant to your organisation
 - Project not relevant to your country
 - Filling the job while he/she was away
 - No negatives
 - Other (specify)
-

17. Suggestions for improvement of the ACIAR Fellowship scheme

Score 1–5 (5 = extremely significant, 1 = not significant)

- More scholarships
- More fieldwork in the home country
- Courses/research to be more relevant to the particular developing country
- More communication needed by student during the course
- More communication needed by ACIAR during the course
- More opportunity to influence the content of the course or research project
- No suggestions
- Other (specify)

18. Has any aspect of the ACIAR fellowship program been detrimental to the former fellow's employment within your organisation?

YES NO

If yes, please specify reasons.



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