



Report for:

**NATIONAL  
PARKS**

# LANDSCAPE APPRENTICESHIP INDUSTRY ASSESSMENT & START-UP LANDSCAPE APPRENTICE MENTORING PROGRAM SINGAPORE

Feasibility Study and Framework 3.2 & 3.3  
August 2011



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SINGAPORE LANDSCAPE  
APPRENTICESHIP  
FEASIBILITY STUDY AND FRAMEWORK  
Phase 1(a) 3.2 & 3.3 INTERNATIONAL

INDUSTRY ASSESSMENT &  
POLICY RECOMMENDATIONS FOR  
LANDSCAPE APPRENTICE MENTORING  
PROGRAM (SINGAPORE)

August 2011

### Acknowledgement

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for

NATIONAL PARKS BOARD  
OF SINGAPORE

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## EXECUTIVE SUMMARY

1. This comprehensive report is the outcomes of the investigation on the characteristics of Singapore's landscape industry, manpower and other relevant operational issues: **Industry Assessment & Start-up Landscape Apprenticeship Mentoring Program Singapore** LAMPS Phase 1(a) 3.2&3.
2. It is accompanied by a revised first report in the Landscape Apprenticeship Feasibility Study and Framework for the National Parks Board of Singapore: the **International Benchmarking Study** Phase 1(a) 3.1 of the study and framework, which now contains needed industry Apprentice landscape organisations and training information from the Berlin region of Germany (Dressler,2011).
3. Both reports are submitted for review, validation and presentation to the **Singapore Landscape Industry Council** SLIC planned for 12 August 2011.
4. SLIC will determine whether or not the study proceeds to Phase 1(b) and what level of support can be pledged to the industry-integrated LAMPS. Both reports conclude with suggestions for a sharper supply-side and marketing focus towards Start-up of LAMPS in 2012
5. It is suggested that Phase 1(b) be adapted to have three elements of **Design and Development of Apprenticeship Framework** LAMPS:
  - 1 Conduct field based research and marketing into supply side interest by existing workers, Existing supervisors, training services providers, secondary schools, community representatives & National Service career agencies
  - 2 Consolidate existing Workforce Skills Qualifications WSO and develop / obtain new especially staff management, supervision content for Landscape Apprentices an Landscape Apprentice Masters
  - 3 Consolidate and produce operating tools: manuals, training blueprint, ongoing Communications plan etc
7. In meetings, interviews and discussions during May and June 2011 with representatives of the Singapore Landscape industry straddling operational and governance levels of organisations, there was much support for establishing a Landscape Apprenticeship scheme in Singapore.
8. We asked representatives of Landscape Companies: "Please rate the importance to your business of establishing a mentored apprenticeship system?" Four out of every five of them said it was critical (42%) or important (38%). Only one in every ten said it was not important. Industry buyers and other stakeholders had a lower critical ratio however overall support was 80%. This augurs well.
9. We acknowledge the help and list most of the Landscape industry people we worked with, 81 in total representing 55 organisations. (p4)
10. We did not have the capacity to fully update the 2006 Landscape Industry Overview (NParks,2006) in our Industry Assessment. We did extend that Overview to cover workforce issues. What are your workforce staff challenges? Attracting Local Workers to the Industry is the most dominant challenge. It correlates, an ageing workforce, growing unskilled Foreign Worker numbers and attrition both of skills and of people who are the subject of the Industry Assessment (p6) reporting as much as possible in the words of the Landscape respondents themselves. In our main focus of identifying the needed elements of any Landscape Apprenticeship we canvassed the contribution of the Centre for Urban Greenery (CUGE) Productivity programs, the most important question is of available on the job training and supervision and how the start-up could be staffed as well as perceptions of what was important to make the Apprenticeship program work. (p12)
11. We conclude with structural recommendations for LAMPS, the proposed Landscape Apprentice Mentoring Program (Singapore), an all inclusive Landscape industry program integrated with all aspects of industry skills requirements. The model for the integrated LAMPS is unique. It has been informed by change management theory and inspired by the German apprenticeship model where the industry accepts responsibility for both on the job training and vocational off the job training leading to collateral and public education in schools, linked to the theoretical / scientific, underpinning and continuing liberal education.
12. The success of the initiative will require industry wide participation. The proposed initiative, Landscape Apprenticeship Mentored Program Singapore (LAMPS), offers the opportunity to grow the skills and productivity of the industry whilst promoting landscaping as a positive career in the Singapore community. A very targeted communication plan will need to be implemented to attract, retain and develop people into the Apprenticeships. These Apprenticeships will offer trade skills training followed by specialist skills and, at the same time, communication and the foundations of leadership skills. These Apprentices will be mentored by Landscape Apprentice Masters who will receive dedicated training and coaching in how to get the most value out of the Apprentices under their guidance.
13. It has been a pleasure for the WPC Group team to work with so many dedicated and passionate people from the Landscape industry during the field work.



## ACKNOWLEDGMENTS

14. 55 entities represented by 81 people were interviewed in May and early June 2011 or provided information. We gratefully acknowledge their contribution:

### Initial Consultations in May 2011

15. 800 Super Waste Management Pte Ltd (Lin Yiting & Steven Ng)
16. Agropolis Pte Ltd (Chua Siok Sin)
17. Arboriculture Pte Ltd (Brett Moir, Martin Tay)
18. ArbSolutions Asia Pte Ltd (Boo Ghim Yew)
19. BNL Services Pte Ltd (Goh Eng Lam)
20. Candy Floriculture (Edwin Tan)
21. Centre for Urban Greenery & Ecology Management.
22. Changi Airport Group (Singapore) Pte Ltd (Khaja Nazimuddeen) (Selvi Thangavelu)
23. Clean Solutions Pte Ltd (Sunny Khoo)
24. CPK Contractor Pte Ltd (Johnny Chai)
25. E2I - Employment and Employability Institute (Valerie Tan)
26. Elmich Pte Ltd (Alan Lee)
27. Evershine Florist Pte Ltd (Joseph Oh)
28. Far East Flora Pte Ltd (Helen Yeo)
29. Flora Landscape Pte Ltd (Dr. Samy) This is how written on business card
30. Hap Hong Huat Pte Ltd (Tay Huat)
31. ICN Design International Pte Ltd (Henry Steed)
32. ISS Hydroculture & Landscaping Pte Ltd (Tee Chye Yong)
33. JTC Corporation (George Kyaw Soe)
34. Kiat Lee Landscape and Building Pte Ltd (Dr S Kamaraj (David)) (Michael Soh) (Simon Soh)
35. Keppel Club (Desmond Chua)

36. Kim Kok Building & Development Pte Ltd (Lau Lai Hock)
37. Mao Sheng Quanji Construction Pte Ltd (Tan Choon Kim) (Tau Liu Hoong)
38. MDL - Mirage Design Landscape and Contract Pte Ltd (Celia Ow Shujun)
39. National Parks Board of Singapore managers (Chan Chung Leong) (Christopher Leong) (Mohamad Azmi Bin Shahbudin) (Ng Cheow Kheng)
40. Nature Landscapes (Michael Teh)
41. New Order Design (Mark Ling)
42. Outboard and Marine Pte Ltd (Chew Kee Seng)
43. Prince's Landscape and Construction Pte Ltd (Alson Tan) (Richelle Pascua) (Ricky Chiam) (Sathish Subramaniam) (Tan Boon Huat)
44. PSA Corporation Ltd (Eng Lam Seng)
45. Raffles Country Club (Seahmala D/O Muniandy)
46. Resort World - Sentosa (Tan Kok Yeang)
47. Shangri-la Hotel (Thomas Schmitt-Glaeser) (Zamri Darus)
48. Singapore Arboriculture Society (President Rick Thomas)
49. Singapore Sports Council (Louisa Tan Loo Ee)
50. Singapore Turf Club (R Jayaraju S/O RAJI@Rengaraju)
51. SOH & TAN Enterprises Pte Ltd (Michael Tan)
52. Swee Bee Contractors Pte Ltd (Sherlyn Ong)
53. Tanah Merah Country Club (Kok Min Yee) (Sai Tu Jian) (Sim Ee Min)
54. TEHC International Pte Ltd (Mercy Chai) (Kenneth Toh Jung Hong)
55. The BLG Group Pte Ltd (Ahmad Alsagoff) (Reha Zehran)

56. The Singapore Island Country Club (K Bala Subramaniam)
57. Toh Kim Bock C-E Contractors Pte Ltd (Anson Choo) (Freddy Toh Khai Hin) (Harold Malicdem) (Kevin Wong) (Phylcia Yang) (Tan Shou Klan) (Yong Hui Chien)
58. Tropical Environment Pte Ltd (Rahmaliah)
59. Urban Scapes Pte Ltd (Radhika Maehendran)
60. Workforce Development Agency (Annie Wong Sau Wah)
61. In addition four entities represented by five people participated but wished to remain anonymous

### Subsequent consultations in June 2011

Companies:

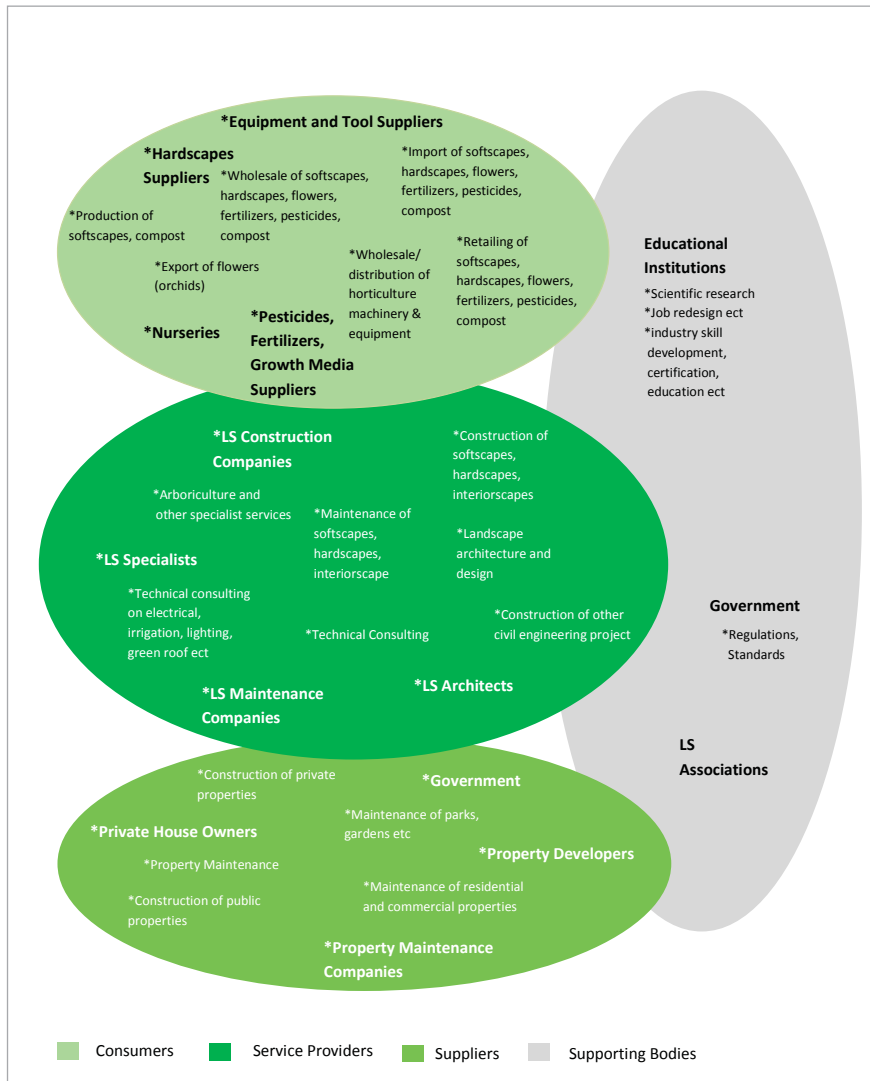
62. 3d Climbing (Boo Ghim Yew)
63. Arboriculture Pte Ltd (Martin Tay & Rick Thomas)
64. Esmond Landscape & Horticulture Pte Ltd (John Tan Chee Hian)
65. Nature landscapes (Michael Teh & Steven Ng)
66. Resorts World Sentosa (Tan Kok Yeang)
67. Singapore Sports Council (Louisa Tan Loo Ee)
68. Swee Bee Contractor Pte Ltd (Tony Kang)

Associations:

69. LIAS – Landscaping Industry Association of Singapore (Chairman and Vice Chairman)
70. SAS – Singapore Arboriculture Society (President)

## INDUSTRY ASSESSMENT

### Industry Cluster Map



Source: NParks. (2006 – Synovate Business Consulting Report). Landscape Industry in Singapore – Industry Overview

75. This detailed review of Singapore Landscape companies as at 2004 (NParks,2006) counted about 521 as active. To this were added 83 softscape nurseries as well as unspecified numbers of hardscapes and supporting industries (fertilizers, pesticides & equipment). 15,400 people were estimated as employed by Landscape companies of whom 76% were Foreign Workers. Source lists are not readily available (Ooi,2011).

76. In February 2011 preparing for this Study we identified 345 unique entities most of whom could potentially be Apprentice employers. 194 of these were NParks-registered Landscape Companies, 110 are members of the Singapore Landscape Industry Association and 41 were listed in the Yellow Pages. Numbers are not mutually exclusive. Employed by these entities were 266 CUGE certified Arborists and 70 CUGE certified Horticulturists.

71. Landscape Industry in Singapore Industry Overview, a major study completed for the National Parks Board of Singapore (NParks, 2006), sought:

- To provide a generic overview of the Landscape Industry in Singapore
- To understand and document the structural attributes of the industry
- To make a Qualitative and Quantitative assessment of the industry's value
- To conduct a full analysis of the industry value chain and its remote environment
- To conduct a full analysis of the workforce and skills requirements

72. In this report we are able to update aspects of the landscape industry and environment, workers' profile, organisational skills and training gaps as well as some management strategies by reporting the outcomes of interviews with a cross section of landscape companies, industry service buyers, suppliers and other stakeholders in May–June 2011.

73. Interviews were held with at least 50 industry stakeholders including, but not restricted to training organisations, funding bodies, employers and unions. (We deferred interviewing parents until Phase 2).

74. The interviews included:

- Focus group sessions (within entities)
- Face-to-face interviews
- Representative spread of stakeholders with a minimum of 30 landscape industry company representatives including senior management and front line supervisors; 10 landscape industry service buyers including landscape contract supervising officers and senior management involved with landscape contracts; and 10 other landscape industry stakeholders.



## INDUSTRY ASSESSMENT

### LANDSCAPE INDUSTRY SCAN

Chart 1: Scan of Singapore Landscape Industry

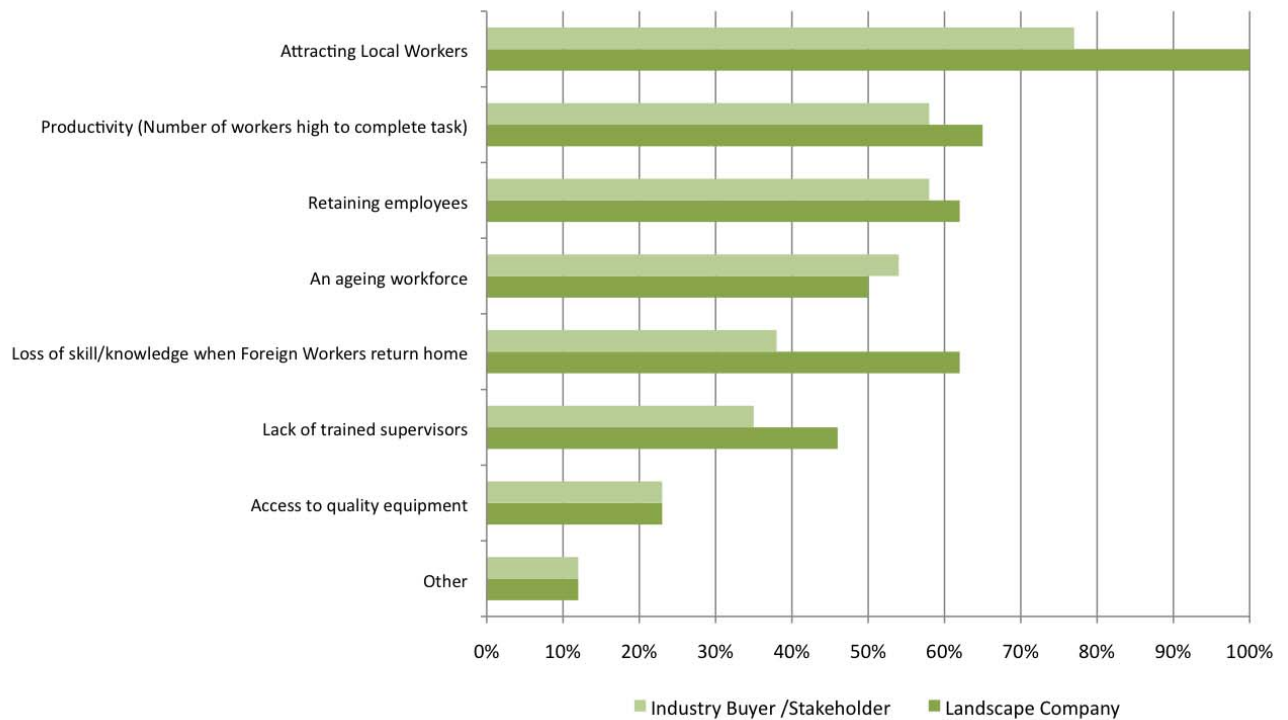


Chart 2: Do you have difficulty attracting local workers to your business?



- |  |   |   |
|--|---|---|
| <p>77. Singaporeans take the natural landscape for granted and don't understand the nuts and bolts. (Key Industry Stakeholder)</p>   | <p>81. I see that young people often only want to work indoors in the air conditioning, not outside and often this is also due to pressure from their parents who want them to go to University. (Industry Service Buyer/Supplier)</p>            | <p>84. There is a perception that foreign workers leave but local workers are also prone to moving around a lot. (Key Industry Stakeholder)</p>                       |
| <p>78. Need to make the industry appealing. Look at the hospitality area where chefs are treated like rock stars. They have been able to turn the industry around (Key Industry Stakeholder)</p> | <p>82. Parents are a large factor as they see no career in the landscape industry and push their children to excel in other occupations. Locals find it too physically demanding and are not equipped to handle the work. (Landscape Company)</p> | <p>85. If you can't install the passion, it will not work. (Industry Service Buyer/Supplier)</p>  |
| <p>79. The industry needs to look professional, our mindset is that it is a career that no one wants to be involved with. (Landscape Company)</p>  | <p>83. Incentives will encourage effort from workers and the ability from employers to take on staff. It is also important to show where their training can take them. (Landscape Company)</p>  | <p>86. The implementation of the apprentice program will help to attract local younger workers to help build for the future for the industry. (Landscape Company)</p> |
| <p>80. Tough conditions are a challenge in attracting local workers. The profile of the industry is very low and only attracts the unskilled. (Landscape Company)</p>                            |   |   |

Chart 3: What are your workforce staff challenges?

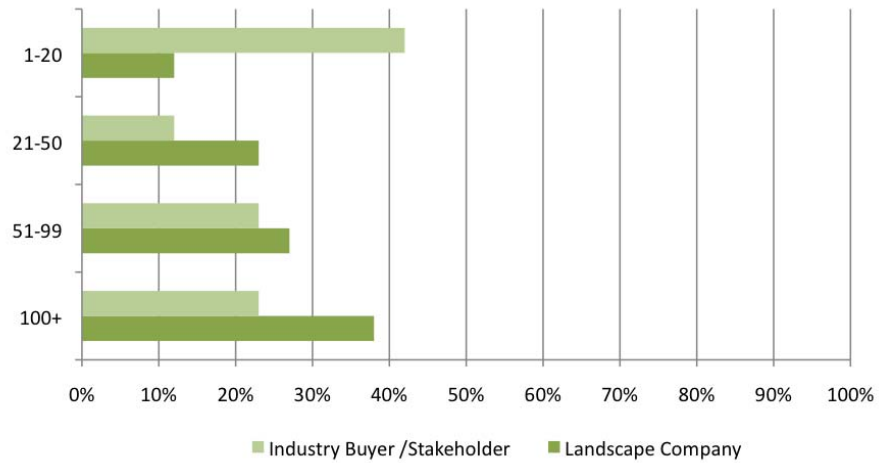


- |  |   |  |
|--|---|--|
| <p>87. Locals have in some cases lower qualifications but always are after more pay. Literacy can also be a problem among workers. (Industry Service Buyer/Supplier)</p> <p>88. Locals don't want to start at the bottom. (Industry Service Buyer/Supplier)</p> <p>89. The young ones today do not understand the importance of basic skills. (Industry Service Buyer/Supplier)</p> <p>90. The Industry is regarded as one that employs foreign workers. Locals also have a slight arrogance after returning from National Service. (Key Industry Stakeholder)</p> | <p>91. There is a shortage of skilled people at the next level. Some only get into industry as it is their only choice and usually their 3rd or 4th choice of career. (Landscape Company)</p> <p>92. Let them know what can be achieved. Also try and include both foreign workers and local workers as foreign workers are the ones that do the ground work. (Key Industry Stakeholder)</p> <p>93. The Government believes that standards have slipped in the industry, I believe that this is due to the lack of local workers in the industry. There is no multi-tasking, 3 qualified workers will be able to achieve the same result as 8 unskilled workers. (Key Industry Stakeholder)</p> | <p>94. The problem with Singapore is they are dependant on foreign workers and that they are the only ones suitable for this line of work. (Key Industry Stakeholder)</p> <p>95. It's not just tough to find locals but very, very tough. (Landscape Company)</p> <p>96. People offering the contracts are at some blame as they tender for the lowest price forcing business to offer low wages and attract less skilled and educated people. (Landscape Company)</p> |
|--|---|--|



## INDUSTRY ASSESSMENT

Chart 4: Total number of Landscape staff



97. I have 2 contractors on site managing the main business. These contractors employ about 30 staff on site on various shifts. What I observe with my contractors staff is often foreign workers work quality is low. Many of the contractors staff change and the training lost, as there is not a structured system to retain these people. (Industry Service Buyer/Supplier)

98. Passion is key to finding the right people and getting the best out of them. (Landscape Company)

99. Need to package up the program well, as history is against this. (Industry Service Buyer/Supplier)

100. I would take on 20-30 young people straight away through this program. There are very few people in the industry that believe if the young people work hard they can really go a long way in their careers. (Landscape Company)

101. If larger companies adopt the program then smaller one's will follow. (Key Industry Stakeholder)

102. The growing and diverse landscape industry in Singapore is represented, supported and advanced by two membership organisations.



**LIAS**  
 103. Landscape Industry Association (Singapore) represents and supports professional development of member companies. <http://lias.org.sg/>

105. Enhances the professionalism and capabilities of members by promoting commerce and trade, and sets the standard for excellence in landscaping.

108. Represents professional arborists in Singapore

**SAS**  
 104. Singapore Arboriculture Society represents and supports the professional development of individual members. <http://www.sas.sg/>

106. Promotes public awareness of environmental and industry concerns.

109. Raises the profile of arboriculture in Singapore

110. Provides seminars and informative events in arboriculture and urban forestry for the dissemination of information

107. Improves the standards of service and promotes upgrading of management and technical skills and in landscaping services

111. Supports the training and education of professionals and the general public

Chart 5: How many of your managers are local / permanent residents?

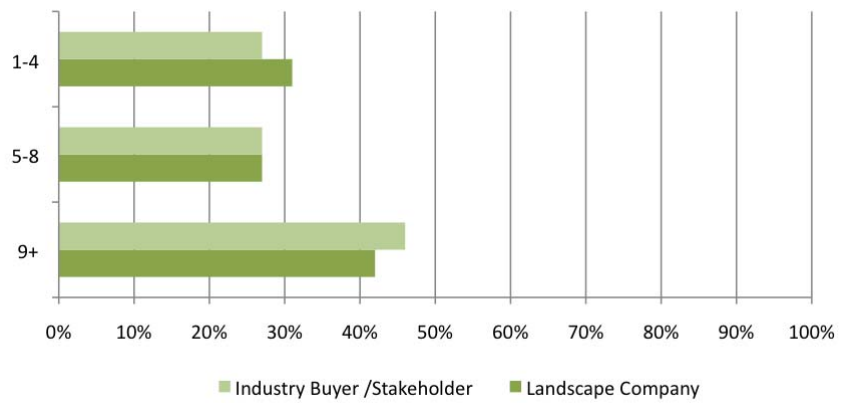
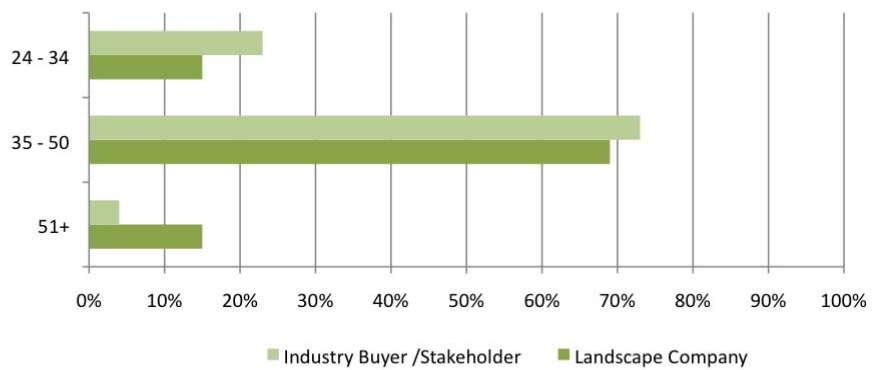


Chart 6: What is the average age of your local workers?



112. The older workers can sometimes be very stubborn. (Landscape Company)

113. Physical labour is a challenge with local workers as most are of a mature age. (Landscape Company)

114. The productivity is low due to the physical capabilities of the ageing workforce. (Landscape Company)

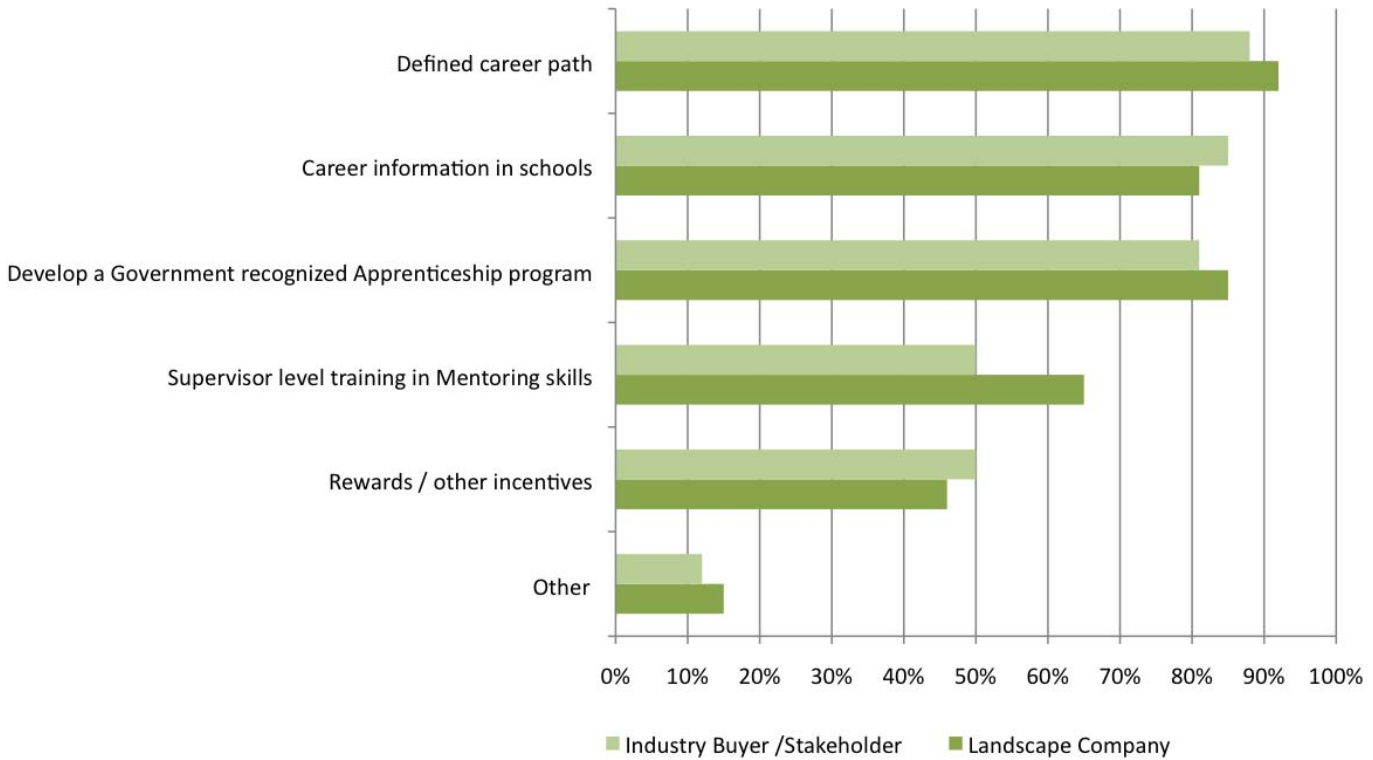
115. There is a strong need to attract younger local workers in the grassroots area of the industry. (Landscape Company)

116. The program will help define a career pathway and produce future leaders for the industry. (Landscape Company)



## INDUSTRY ASSESSMENT

Chart 7: What measures could be taken to attract and retain local workers?



- |  |   |  |
|--|---|--|
| <p>117. The Government must assist to raise incentives for the young workers. With wages so low at the moment, it will be difficult to attract young people the industry will need. (Industry Service Buyer/Supplier)</p> <p>118. Government will need to get on board to help both the apprentice and employee through support both financially and mentoring. (Industry Service Buyer/Supplier)</p> <p>119. Locals will be more receptive to a mentoring program but must be educated through schools and show a defined career path. (Key Industry Stakeholder)</p> | <p>120. An exchange program post apprenticeship would enhance the prospect of attracting local people. Maybe a two tiered approach to the program aimed at lower level people and mid-stream workers. (Landscape Company)</p> <p>121. The chance for work placement overseas post apprenticeship would appeal to the parents and also the younger people. It would show that it is a world wide industry. (Key Industry Stakeholder)</p> <p>122. Industry needs to excite the applicants and show career path. (Key Industry Stakeholder)</p> | <p>123. The wages for local workers are not any higher than foreign workers. (Landscape Company)</p> <p>124. Wages are low so it makes it hard to attract local workers to the industry. (Landscape Company)</p> <p>125. Subsidies are not important as we need to build to the future. Priority is a succession plan not subsidies. (Industry Service Buyer/Supplier)</p> |
|--|---|--|

### STAKEHOLDER INTERVIEWS

126. After exploring workforce issues and problems in the Landscape Industry we asked about the proposed new Landscape Apprenticeship scheme for Singapore.

127. All our Respondents knew about the four elements of apprenticeships being on the job training, parallel off the job training (although uncertain about where), supervision and earn while you learn. We had this description with us:

128. "Apprenticeship training is done while working for an employer who helps the apprentices learn their trade (on-the- job-training) and attending vocational schools (off-the-job-training).while being paid by the employer"

**Chart 8: Please rate the importance to your business of establishing a mentored apprenticeship system?**



- |  |  |   |
|--|--|---|
| <p>129. It is very frustrating to business as the workers are lost after the training has occurred. Promotion about the industry is crucial in schools and teaching them about a career. (Landscape Company)</p>     | <p>132. Having skilled people will cut down costs and increase the productivity within our industry. (Key Industry Stakeholder)</p>  | <p>136. As long as you breathe, you can learn every day, we need to make an apprenticeship the beginning of the learning cycle in this industry and train people through their life. (Key Industry Stakeholder)</p> |
| <p>130. The government will have to support the system as they only tend to give the tenders to the lowest bidder which leaves the contractors no choice other than to pay low wages. (Key Industry Stakeholder)</p> | <p>133. The status of the industry needs to lift.They are happy to pay slightly higher as long as they can see the skills coming through and the retention of employees. (Landscape Company)</p> | <p>137. I would love to be involved in a program like this so that I can help teach the next generation. (Landscape Company)</p>  |
| <p>131. It is important that the costs are not too great to business. (Industry Service Buyer/Supplier)</p>  | <p>134. It would be great to see a succession plan for the industry and give young people the opportunity and responsibility to prosper. (Key Industry Stakeholder)</p>                          | <p>138. Cost of foreign workers are not limited to wages. Employers also must pay for housing, food, clothing and transport. (Key Industry Stakeholder)</p>   |
|  | <p>135. Long term employment is a problem in the industry and I would like to see a program that can arrest this. (Landscape Company)</p>  |   |



## INDUSTRY ASSESSMENT

Chart 9: Have you or your supervisor attended a CUGE Productivity Tour?

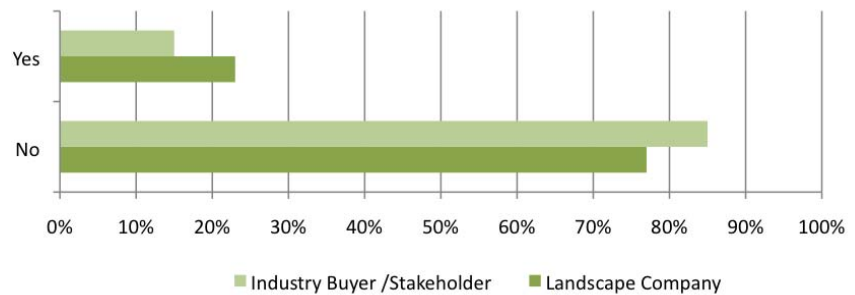
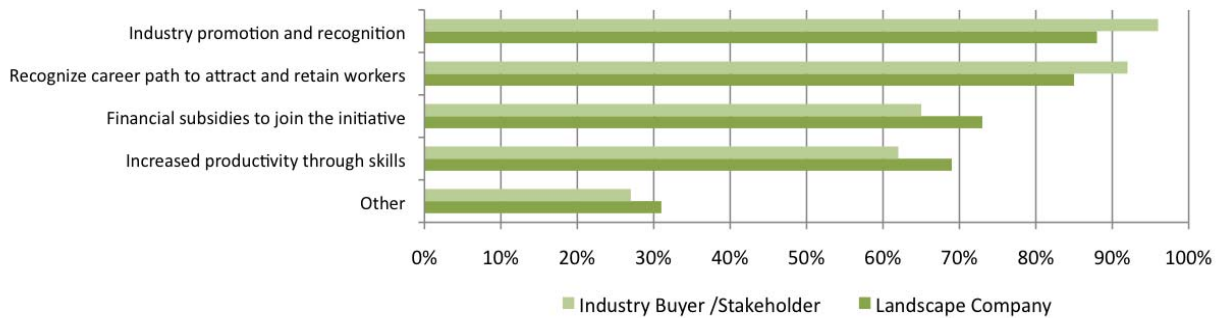
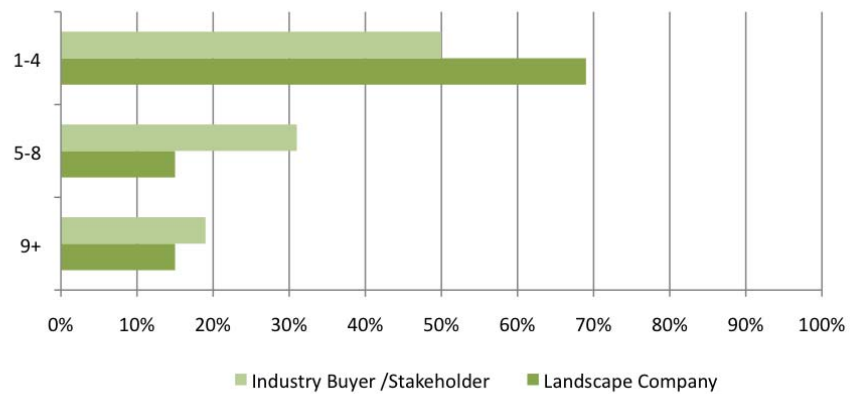


Chart 10: To make the Mentored Apprenticeship Program work, what is important to you?



- |   |  |  |
|---|--|--|
| <p>139. We should look at another name other than apprentice as this title does not have a great reputation in Singapore. (Key Industry Stakeholder)</p>  | <p>142. The program must be fully ready to start to ensure the success. Outside help from an independent body is required to ensure the smooth running of the program to make sure that it works successfully. (Landscape Company)</p> | <p>146. The mentoring apprentice system is a quality way to deliver consistency throughout the industry. (Industry Service Buyer/Supplier)</p>   |
| <p>140. Apprentices must have a sense of value which will help lift the program. It is important to lift the profile of the industry to attract locals. The cost of the program is also important. (Landscape Company)</p>  | <p>143. The frustration is when workers leave after the training has been put into them. (Landscape Company)</p>   | <p>147. There was no attention to the industry for many years, so now we are faced with a critical shortage of workers. (Industry Service Buyer/Supplier)</p>  |
| <p>141. Certain parts of the industry need more help than others. Turf Management is a well paid job so positions are easily filled in that area. Would like to see a pathway for apprentices post training and would like to see the right people involved in the industry to achieve long term growth. (Key Industry Stakeholder)</p> | <p>144. People forget that to progress through your career you must have a good knowledge of the basics. (Landscape Company)</p>   | <p>148. The lack of passion in people in the industry is a problem. (Landscape Company)</p>  |
|   | <p>145. Companies and Government need to work closely with schools to show them the better points of the industry. (Key Industry Stakeholder)</p>  | <p>149. Foreign workers are not professional but will do the work that locals will not. The problem is because they are paid by the hour they will draw the work out to earn more pay. (Landscape Company)</p> |

**Chart 11: How many supervisors/managers do you have who could potentially be trained as mentors?**



150. Many people wish to become managers but are not able to perform the duties or know what is required. Some managers treat workers very poorly. Costs are important to business. (Industry Service Buyer/Supplier)

151. Having supervisors and managers that have skills are hard to find. (Landscape Company)

152. There will be no one at mentor level who have the skills to train apprentices on the job. This will be one of the biggest challenges. (Key Industry Stakeholder)

153. There is no formal training at supervisor level which is a concern. Diploma level students in the industry are only after the papers and hardly ever return to the industry. (Landscape Company)

154. Very important that there is a certified program for designated mentors. (Landscape Company)

155. Training in the supervisor area is essential. (Key Industry Stakeholder)

156. I feel we need to have a change in mindset of local contractors.

157. The selection of mentors in the program would be critical. There will be many people interested in the concept but the people mentoring the apprentices must have the right positive can do attitude.

158. They can be taught skills. This will all need to be tied together with a responsible group who will make sure the initiative is completed and the momentum maintained. (Industry Service Buyer/Supplier)

159. The cost to business is important and also feel that skills will be attained quicker through the mentoring program. (Industry Service Buyer/Supplier)

160. Apart from charts to illustrate statistical information, there are no images in this Report. We do not want to portray the landscape profession by past images or with limited skill tools. In Phase 1(b) we will seek access to carefully selected and more exciting images (eg from the new journal City Green) and other sources.



## POLICY RECOMMENDATIONS FOR START-UP

### A Landscape Apprentice Mentoring Program for Singapore

<sup>161.</sup> Singapore's landscape industry is ready to implement a landscape apprenticeship programme supported by a Group Training Mentoring concept.

#### **Bridging the gap**

<sup>162.</sup> A Landscape Apprenticeship Mentoring Program in Singapore could be built around the slogan of 'SCM 21' - 'Shared Committed Model in the 21st century'. The success of the program will require a coming together that could be described as 'Bridging the Gap' between employer and employee expectations. Both the employers and employees will be brought together by various parts of the program, bridging the gap between expectations from both groups. Neither group will be successful or work without a strong commitment from the other. For instance, the new generations are taught in school from a very early age about gender and cultural diversity as most young people have now been brought up in true multicultural societies.

<sup>163.</sup> It will be critical for employers to harness this diversity in their workplaces providing a work environment that reflect this. In several of the countries studied, effective initiatives were driven by employers ability to incorporate aspects in the apprentices job roles that were interesting and relevant to the Apprentice. This led to stronger retention and commitment from the employee. This is a list of some considerations for both the employees and employers to manage expectations going into the initiative.

### **Educating employers on the need and the benefits**

- Apprentices of today, will be the managers and leaders of tomorrow 'it needs to be promoted as a true 'career pathway' within their business
- Employers must understand and become relevant to the new generation of workers in Singapore
- When targeting perspective Apprentices additional effort will be required to attract and retain them
- Young Apprentices can bring energy and new ideas to leave with businesses
- Young Apprentices will be very open minded to mechanisation (which will also lead to productivity). Apprenticeships are not a direct substitute for foreign workers, they are complimentary to a changing workforce
- Taking a broad view to workforce participation, not to just focus on school leavers alone to take on the Apprenticeship roles

### **Educating Employees on the opportunities and career pathway**

- This is not just a job, this is a career pathway
- You can learn a skill and earn money whilst you learn
- On how best to relate to older workers and foreign workers
- To change the perception all they will do is the 'clean up' jobs and menial tasks
- They won't be micro managed
- Their managers are being trained in contemporary leadership and that they understand there is work life balance
- They will be empowered and a trusted member of the team

### Applied Group Training Options (Two options)

#### **Traditional GTO Model – Option 1 the GTO as Employment & Training Manager**

<sup>164.</sup> As we saw in the International study, one key strength of the GTO approach is the diversity and independence giving GTOs an ability to quickly respond to the special needs of their business clients, their industries and the regions they serve. The GTO model is working very successfully in Australia with over 35,000 Apprentices currently in the program. South Africa is running a smaller GTO model and the UK is now returning to the GTO approach.

<sup>165.</sup> The GTO advises businesses about the advantages and practical requirements of having an apprentice in their workplace. GTOs manage the recruitment process, organise training, pay wages, complete government registration and paperwork, assess workplace safety, mentor apprentices/trainees and solve workplace problems. In many instances, GTOs are the legal employer of the apprentice and place them with a variety of host businesses where the apprentice/trainee works and receives on the job training.

<sup>166.</sup> Some other key strengths of the GTO model for Employers and Government:

- The model provides improved career guidance and pathways from school to further training and employment
- Group Training offers Host Businesses and Government flexibility and control
- The model provides more support for both Host Businesses and apprentices leading to an increase in the number of apprentices successfully completing training

- The model that provides the support needed by those who are from disadvantaged or underrepresented employment groups
- Is a source of market intelligence with employment and training statistics and trends
- Access expert advice from GTOs on how to be involved in training an apprentice
- A GTO 'one stop shop' that takes care of the recruitment, selection and administrative processes
- A GTO organises the training requirements and monitors apprentices progress, both on and off the job
- A GTO partner delivers ongoing personal support, workplace monitoring, safety assessment advice and trouble shooting of any problems
- GTOs make the whole process simple and easy so business can get on with running their core business

167. In the GTO model, there are also significant benefits to the employees. These include:

- Access to expert advice on whether an apprenticeship is the right choice for them, what to expect and how to prepare themselves
- The GTO finds an apprenticeship placement that will meet their needs and career aspirations.
- The GTO ensures the workplace is safe and the apprentice is treated fairly
- The GTO provides ongoing personal support and workplace monitoring and mentoring to ensure they progress well in their training and to solve any workplace problems
- The GTO (in some instances ie WPC) provides coaching to the on site Apprentice Masters in how to get the best from their Apprentices

168. In the Australian mode the GTO is often a separate entity employing apprentices and trainees. In consequence this system is controlled by the different States which means different OH&S legislation, funding, employment law etc per state. Another consequence is legal priority of general wages. If a Host Employer becomes insolvent the GTO generally does not recoup any wages owed. It is due to these pressures that many GTOs are now developing a hybrid model where they are not the legal employer.

### Hybrid GTO Model – Option 2 the GTO as Program Facilitator

169. The hybrid model would be structured around 3 concurrent strands:

- The Landscape Leader (LAL)
- The Landscape Apprentice Master (LAM)
- The Landscape Apprentice (LA)

170. Having undertaken the International benchmarking, and looking at the countries who are using the traditional GTO model and those returning to it, as well as those who have tried and not been successful, it is proposed that Singapore develop a Hybrid Group Training approach. This would be taking about 80% of traditional GTO's most successful activities such as mentoring, ability to rotate and reporting and administration. (Not utilised would be the 20% of activities that the traditional GTOs model is moving away from or that may have complexities when trying to transition.)

171. The model would need to be operationally run by a company in charge of the facilitation of the program. This organisation would need extensive experience in the roll out of Apprentice Mentoring and meeting both internal and external stakeholder objectives.

172. It would be recommended that the organisation be independent, not linked to any business or any agency so as to maximize participation and buy in from as many stakeholders as possible. The intermediary refers to the ability to have an independent accountable organisation representing the broad scope of constituent interests whilst ensuring that the program meets the objectives of its key funders and supporters. Some recommended activities of the GTO Program Facilitator include:

- Manages all aspects of reporting and evaluation
- Manages administration of Apprentice contracts
- Establishes an Apprentice rotation process between employers
- Serves as chief liaison between the program partner's
- Serves as main resource and contact for employee and employer questions and needs
- Distributes program-related information to program participants and those interested in the program
- Facilitates the selection of the LAM
- Provides one on one coaching in the field to the LAM
- Recruits the LA into the program
- Drives the program design, scheduling and logistics
- Facilitates LAM and LA mentoring schedules
- Hosting "Meet and Greet" event
- Program staff contact monitor
- Attends all relevant training
- Coordinate events/ meeting related to the initiative
- Raises profile of the program with industry



## POLICY RECOMMENDATIONS FOR START-UP

### Program Participant Organisational Structure

An all industry participation in LAMPS

The Landscape Apprentice Leader - LAL	The Landscape Apprentice Master - LAM	The Landscape Apprentice - LA
<p>The landscape apprentice leader will be a senior manager, executive or owner of the Landscape business charged with the organisations workforce development and strategy. They will be charged with creating the culture to leverage widespread buy-in and involvement from all people within the business. Acceptance of the importance of the program will be a critical success factor. They will be required to promote the internal culture toward supporting the program. Advocacy and meaningful involvement from management is one of the most essential best practices for workplace community initiatives. This person is the most critical to ensure that the program is successful, documented and sustainable. It is recommended that this role be incorporated into the managers position description and define what the measures of performance and accountability will be.</p>	<p>The Landscape Apprentice Master will undergo specific off and on the job training and one on one coaching in how best to relate to the Landscape Apprentices. In the initial start up program, each employer who wishes to participate would be asked to nominate several potential Landscape Apprentice Master candidates to make the program as inclusive as possible. However, only one person will be selected from each company in the initial start up. This of course depends on the number of Apprentices to be mentored on each site. There will be transparent criteria and an interview with the GTO Program Facilitators looking for those people who have the foundations and mindset of the skills required to go through the initial accelerated program. For those that are not selected in the first round, they will be invited to join a selected CUGE program to build confidence and skills and be nominated for the Landscape Apprenticeship Master initiative in subsequent rounds.</p>	<p>The Landscape Apprentices will be recruited into the program from a diverse group of people. They will understand this is an opportunity to earn while they learn and this is an entry level role that has a clear and defined pathway toward a team leader, supervisor and even manager level. The Apprentices will know that one day, they to can become Landscape Apprentice Masters and aspire to the Landscape Leader within their organisations. The apprentice will attend on and off the Job training. Apprentices will be recruited on attitude and then learn communication, cooperation and how to harness opportunities to display initiative. On top of the technical skills required to do the actual job, we are proposing to take a 5-10 year forward perspective of the skills today apprentices will require as the Landscape Apprentice Masters and Leaders of tomorrow. Some of this content would include soft skills such as communication, improving own learning, problem solving, working with others and human relations skills.</p>

### Landscape Apprentice – OWS Training Content

- 173. Most employers favour Apprentices being at Trade School (off the job training) one day at a time as opposed to being absent from workplace to undertake their studies in a block period. Two key reasons include the Apprentice not being able to go back to the workplace regularly and try out their new skills and also the strain placed on the employers to cover the long absence. Geography of Singapore with OWS in a central location is also an issue.
- 174. Each LAMPS apprentice would need to undertake an initial 'orientation' before they commence with their employer. This would cover aspects including : What to expect during the Apprenticeship, OH&S practices, uniform requirements as well as some basic communication skills. The orientation may be up to 5 days in duration and subsidised.
- 175. Forming part of the Framework will be WSQ levels already developed by CUGE an additional suggestion is all LAMPS apprentices, undertake OWS training in people management, supervision and human resources in their first year (not necessarily available in WSQ framework at present).
- 176. In the second year LAMPS apprentices should be able to specialise into one of the following pathways:
  - Landscape Operations/Design
  - Parks Reserves & Gardens
  - Arboriculture
  - Nursery Operations
  - Turf – Sports, Gardens and Greens
- 177. The specific details of the course of study and content should be specified in the phase 1(b) section of the framework.

## Objectives of Landscape Apprenticeship Mentoring Program Singapore

178. The objective of the LAMPS initiative is to empower employees to reach their full potential and outcomes in education, employment and workforce productivity. Some considerations will include:

- How will be the best way to attract people into the industry?
- Once we have attracted them, how will we keep them engaged and employed?
- What training style will get the best outcomes for the businesses and ultimately the Landscape Industry?
- What rewards (apart from financial) can be incorporated into the system to motivate the Apprentices?
- How should companies best relate with their Apprentices to inspire and motivate them?
- The Landscape Leader and Landscape Apprenticeship Master training content – What is the best way to lead, motivate and inspire workers?

179. In the 21st Century, the ideal supervisor is one who values open communication and a person who leads other workers, inspiring them by example. The LAMPS should have a strong focus on mentoring, support, constructive feedback, rewards and recognition. Some effective leadership concepts include allowing workers to participate in the decision making process. They don't need to make the final decision, but engaging people through inclusion is effective. Relationship building with the new workforce is also very effective.

180. This can be very effective with coaching and mentoring. Some less effective leadership concepts are based around older management and leadership styles such as the position of 'authority'. The leader relies on their delegated authority and often 'yells' instructions at the

workers. This has been proven to be an ineffective way to relate and lead the generation of new workers.

### Key attributes of Mentors

- Interested in helping others succeed
- Eager to pass on their expertise and knowledge
- Must have high level listening and communication skills
- Must be reliable, honest, trust worthy and hold confidentiality skills
- Must guide employees but not push them
- Must be caring but be able to show assertiveness
- Mentors are people who have the qualities of good role models and leaders
- Mentors educate people about their life and own career experiences
- A good mentor listens and lets the person research the answer themselves

### Specific education issues

181. Except in Germany, international apprenticeships programs are introducing or re-introducing literacy and numeracy education into training curriculum. In Australia, McDowell et al (2011,83) quoted submissions that 75 per cent of employers reported their business were affected by low levels of literacy and numeracy both in their current and prospective (ie apprenticeship) workforce. The recent Wolf (2011) Report in England strongly supported the strengthening of Foundation Studies even up to Degree level for similar reasons. In Singapore this may be an issue for the LAMs as well as those LAs recruited with only partially completed secondary education.

182. Our evidence for this is circumstantial. In designing our Consultation with Landscape industry stakeholders we prepared a short, web accessible questionnaire to help us extend and test interview information. The questionnaire in full would take up to 15 minutes to do, however there were many

short-cuts that could be taken by any Respondent who was short of time. Invitation to some CUGE WSQ completers was sent by email and others were invited to complete following our interviews by being given the Web link <http://www.websurveymaster.com/s/WSQLandscapeApprenticePilot>.

183. We received more than 60 responses but only 15 of them were usable. Three quarters of the Landscape industry representatives who intended to help us got as far as accessing the questionnaire on their browser, answering a couple of introductory questions but, at the first drop-down answer box with more than five options from which to choose, did not get much further. Generally the (very) partial Respondents, just switched off the web page.

184. What were the characteristics of our completing web survey Respondents and what did they say? Half were men and half women in three even age clusters: under 30, the 30s and 40 plus. Most were proficient in a language other than English (Malay 7, Mandarin 8 and Tamil 3). Their work roles were Director or Superintendent (2), Horticulturist (2), Manager or Supervisor (10). Five had CUGE WSQ qualifications, however the most important characteristic was their education level: just two had ITE certification or completed O levels while four had a professional qualification and other diploma, five had a Polytechnic diploma and four a University degree.

185. About Landscape apprenticeships 14 said "I would describe my present employer as having the ability to employ and provide Apprentices on-the-job training. One didn't know. The employers were the Kim Bock Group (6) Changi Airport Group (3), a mid-size landscape company (3) and small entities (3).



## POLICY RECOMMENDATIONS FOR START-UP

### LA Recruitment

#### GCE 'N' level and 'O' level secondary school finishers

186. Although internationally the modal entry into apprenticeships, Singapore recruitment from this group is unlikely to be substantial. Involvement in re-imaged school Career Education programs is a possible intervention to increase uptake but would require 2-3 years lead time for effectiveness.

#### Women

187. An increasing proportion of landscape / horticulture apprentices in other countries are women. Industry requires an in-depth assessment of how in the Singapore cultural milieu, women could become more involved in the industry.

#### Existing workforce

188. In New Zealand, especially the recruitment focus is on the existing workforce, with average age of Apprentices in the high 30s. The proposed all-industry involvement in LAMPS will increase opportunities for a very limited pool of unskilled Local Workers to become LAs, however the industry will be the start up source of LAMs.

#### Entry referred through other education programs

189. The CUGE job placement program could become important. Future ITE graduates, likewise in the Landscape field. Finally Careers Expos large and small should be investigated, perhaps in collaboration with other trade industry groups which face comparable recruitment challenges but whose image is rising (eg international hospitality / chef des cuisines).

### Post National Service Men

190. We regard this path as potentially very productive for LAs and describe the context and recruitment methods:
191. Male Singaporeans must enlist for National Service before they are 18 and after 16 ½ years, if under 18 years of age parental permission must be received. National Service used to be for 2.5 years however has recently been reduced to 2 years. Generally National Service is attended at camps situated across a wide area of Singapore. New recruits commence earning \$420 / month plus living expenses, can earn up to \$2000 if they become officers. Post two year service annual duties (up to 40 days per year until aged 40) are remunerated at around \$1,000 / month with some make up opportunities if civilian salary is greater. Depending on the Unit assigned to block of service are outdoors and working with others, in teams and experience of supervision is gained.
192. Two services are available for NSmen in relation to careers advice and further development albeit with a focus on further Government service. Given the National priority of the City in the Garden goal these services could subsume LAMPS recruitment through two services.
- Next Career - You need to be an NSman to sign-in to get more information, or if you are a company, you need to sign up as an interested employer offering available jobs
  - e-PREP - is for full-time NSmen during their last 12 months of service and one year afterwards They will be allocated training credits to purchase courses offered under the scheme. Individual NSF's are notified by post when they become eligible for the scheme

## PERFORMANCE MANAGEMENT

### High Expectation, High Performance

193. It will be critical to measure the performance of the LAMPS initiative. A system must be implemented that is an efficient, meaningful and participatory way, will ensure that the performance of the Apprentices is tracked and that those at risk of dropping out are identified and receive intensive support, mentoring and in extreme cases potentially external counselling or other support.
194. On a USA study tour in May 2011 the authors were able to undertake research into and make contact with the founder of an organisation called 'Year Up' based in Boston. Year Up is a one-year, intensive training program that provides urban young adults 18-24, with a unique combination of technical and professional skills, college credits, an educational stipend and corporate internship.
195. The company is most interesting in its formation and has been the subject of an important Harvard Business School case study (Grossman & Grecol-Herlich, 2011)
196. An opportunity exists to develop a points based incentive system around Year Ups 'High expectation, High performance' campaign that every student is required to sign in at enrolment. It describes the expectations, detailing the positive and negative behaviours that are rewarded or penalized. The purpose of the year up contract with its young people has three main purposes:
- First, it ensures that every student knows the rules and understands the rule enforcement is predictable and fair
  - Second, it ensures that all students are working positively toward common set of goals
  - Third, it is set up as a tool for learning the expected minimum standards of professional

behaviour. Each student is held accountable for his/her actions and faces consequences for his/her behaviour.

197. Further research into the successes of this program will be sought and concepts developed in Phase 1(b).

### Landscape Apprentices Performance Contract

198. On being accepted into the LAMPS program, each Apprentice would be required to enter into a performance contract. This contract would set out the core values of the program, the purpose of the program and then explain the points system.
199. One way the points system could be managed for example could be where each Apprentice starts with 400 points. Points are deducted for violations of the expectations. For example, absence without notification from employer is a deduction of 50 points. Failing to attend off the job training without a valid excuse 50 points. If the points fall to 200, this would be a flag for the mentors that intensive work would need to be undertaken with the participant.
200. This points system would be designed to not only recognise poor performance, but also recognise participants that were excelling. An example may be participating in an industry competition, such as Green Thumbs + 50 points. It could be considered that at the end of the Apprenticeship term, any points up to 400 points could be converted into an Apprentice completion bonus. An Apprentice who has 325 points at completion would receive \$325 bonus.
201. A clear summary of expectations is to be developed in Phase 1(b) that would include the clear expectation, the description and the consequence of not meeting or exceeding the expectation. It

would also have listed the ways that the Apprentices could undertake activities that would attract additional points.

### Landscape Masters Code of Conduct

202. It would be important that the Landscape Masters entered into a Code of Conduct agreement that also would set out expectations of the program. This would compliment many of the attributes sought from the Apprentices, and include some of the behaviours that the initiative seeks to build. One such desired position would be the way to talk to Apprentices to get the best performance from them.
203. It would also cover areas including workplace safety and allow the Apprentice time to attend OWS. This code of conduct will be designed in Phase 1(b).

### Productivity Benchmarking

204. CUGE and E2i commissioned research into the labour productivity for the landscape sector in Singapore that was completed in May 2010. The study findings noted significant differences in many areas of landscape maintenance between Singapore and Australia that directly affect productivity. The report also identified that single largest maintenance task undertaken in Singapore is horticultural maintenance that includes garden beds, hedges and trees.
205. Landscape maintenance is often overlooked and undervalued. However, not only is maintenance the most costly activity over a landscape's lifecycle, it is essential to the achievement of setting a purpose, design, and user satisfaction. Singapore's parks, streetscapes and landscapes are among the world's best. Its landscape ameliorates the tropical climate and enhances the built.



environment, creates places for outdoor recreation and exercise, and provides natural beauty and tranquillity. The green landscape also contributes significantly to Singapore being a major Asian tourist location and pleasant place to live through creating a 'City in a Garden'. (Vial 2011,2). In Phase 1(b) we will be looking at how this information is to be included in the WSQ levels.

### Recognition of Prior Learning

206. Recognition of Prior Learning is a method of managing individual training plans. Many people bring with them skills and knowledge that may enable them to gain a landscape qualification without completing in full the necessary WSQ or other training program or course. These skills and knowledge – that could have otherwise been developed through undertaking an accredited course or OWS training – may have been gained through some other forms of study, formal training, self-tuition, work experience or life experience. RPL is an assessment process that assesses the individual's non-formal and informal learning to determine the extent to which that individual has achieved the required learning outcomes, competency outcomes and/or partial completion of a qualification. RPL recognises this prior knowledge and experience and measures it against the course in which students are enrolled. A potential LA or LAM possessing some of the skills and/or knowledge in a WSQ course may not have to complete all of its units.

### Apprenticeship pay strategy

207. There needs to be a higher rate of pay for somebody who is signing on to the 2 year term, as opposed to someone who just attends work and does a job. Unlike University you actually get paid to learn and on completion, do not have an education debt for instance. If you are studying full time, your pay equals zero. How this is presented to candidates considering an Apprenticeship is very important.
208. The formula could include the 2 years of pay + the additional employee Apprentice proposed completion payment = X (many young people only think in weekly or hourly pay). This could then open up a whole new segment as people who considered going to university are starting from pay expectations of zero. An opportunity exists to introduce incremental % based pay as the apprentice progresses.

### Contractual Commitment

209. In many countries, it is a requirement of Government funded contracts that a % of the workforce be Apprentices. As an example, in Australia, the Council of Australian Governments recommended that 10% of the total workforces on Government funded stimulus projects be Apprentices. There are two suggestions as to how this make be undertaken:
210. Active: - It would form part of all National Parks and CUGE Contracts that a % of the workforce be Apprentices. This is recommended at 3%-6%.
211. Passive: - Employers who demonstrate their commitment to the Apprenticeship Initiative be given increased standing.

## LAMPS MANAGEMENT

212. The Program would be run through CUGE. It is proposed to have a steering reference committee and an external GTO Program Facilitator, to add independence and structure to ensue the programs success.

### Proposed LAMPS Steering Reference Committee

213. In 2010, SAS, LIAS & CUGE met informally to map routes for industry improvements. The reference group would aims to provide leadership to the program whilst bringing diversity enabling uptake by industry, data to be sourced faster, continual scanning of the external environment, gathering market intelligence.
214. The purpose of the Steering Committee is to assist in the development of the Singapore Landscape Apprenticeship framework. It is proposed that this be a starting point to form the reference committee, potentially made up from:
- Representative WDA
  - Representative E2i
  - Representative National Parks Management
  - Representative SAS
  - Representative LIAS
  - Representatives of industry – a possible employer and also links to the military who may be a good source of candidates coming into the program.
215. Co Facilitators:
- WPC Group (GTO Program Facilitator)
  - CUGE (Teva Raj & Neil Power)

## CONCLUSION

216. The Singapore Landscape industry is increasingly under stress.
217. On the one hand it is increasing in size along with Singapore's economy and has a central role in the nation's strategic development of growing a Garden City into Singapore, City in a Garden. Growth of the Singapore economy depends on tourism and the development, as a residential hub in the Asian region, for financial and other service industries and so the greening orientation is among the highest national goals.
218. On the other hand the Landscape industry is economically inefficient. In the main, both skills and labour have historically been imported. There was no local vocational education and training available in the landscape or horticulture vocations until 2008 when the Centre for Urban Greenery (CUGE) began professional activities including the beginnings of Workforce Skills Qualification (WSQ) courses. Production is increasingly dependent on rotations of unskilled Foreign Workers as many landscape companies are in the process of converting to become construction companies so as to overcome the regulatory limit on landscape companies of one Foreign Worker to one Local Worker. Construction company limits are 7 to 1.
219. Landscape companies have to some extent, always provided on the job promotion of basic horticulture skills and of workforce supervision and management capacity. But for a number of reasons, recruitment of local workers by the Landscape industry unskilled or skilled has been minimal. The most evocative evidence is the statement to us by a Landscape Company Director, echoed by many others: "Its not just tough to find locals but very, very tough."
220. Employment recruitment and retention in the Landscape industry of Singapore Citizens Permanent Resident has been low because of three main factors:
- Landscape industry work is generally regarded in the community as manual and menial, meaning (from the Dictionary) it relates to and involves work that requires little skill or training, is not very interesting, confers low social status on whoever is doing it.
  - Occupational aspirations of Singaporeans are more and more focused on University or at least Polytechnic qualifications. Even in our review of the Singapore Institute of Technical Education we noted the upwards shift over time of Certificate level courses to meet the desire for a university degree, seen by the foundation ITE CEO as pervasive in Singapore society. Supporting this view is relevant contemporary evidence from the first two graduating classes in 2009 and 2010 of NITEC (National ITE Certificate) in Facility Technology (Landscaping Services). Of graduates who are not undergoing National Service, four out of five have gone on to Higher NITEC or Polytechnic studies. It must be said on the basis of our investigations, especially of Australian and United Kingdom apprenticeship arrangements, that such upward mobility aims are not unique to Singapore.
  - Government and entity contracts to Landscape companies which are the bread and butter of the industry are highly contested. They are perceived as being awarded only on price and, in any event, limit wages which employers are able to pay. The wages of Foreign Workers are on average (less cost of living deductions by employers) on par with adult entry level or basic technician wages, of around S\$1,000 per month.
221. Any skilling program must address each of these three factors if it is to be effective in achieving the aim of recruiting and producing:
- independently capable workers
  - who are able to work productively by themselves or a part of a team as well as to manage unskilled workers
  - regarding themselves as members of a profession
  - who can innovatively problem solve within their job scope
  - are willing and able to undertake most aspects of the "trade" skill set as required and
  - can work under general supervision (not necessary for daily oversight).
222. The program will:
- Provide competency qualification (already developed in CUGE WSQ technical programs) with additional technical units
  - Create 3 concurrent strands LA, LAM, LAL to ensure support and buy in to the program from the highest level within the organisations through to front line workers
  - Have a strong focus on mentoring the Apprentices and coaching the supervisors and leaders
  - Require a comprehensive communication roll out:
    - > To highlight the importance of landscape work to the Singapore economy and National Goals
    - > To broadly raise the status of landscape careers
    - > To attract, retain and develop Singaporeans to be the next generation of the landscape industry
  - Industry wide consultation leading to ownership and accountability
223. The communication and marketing plan will be further expanded on in phase 1(b). Having identified the importance to the Singaporean Economy, financial investment will be required to ensure the programs ultimate success. This will need to include financial support and subsidies for both on the job and off the job costs.



## INDUSTRY COMMITMENT

231. To be a success (against the powerful forces just mentioned in the Conclusion) the LAMPS program needs consolidated and visible public commitment from the Singapore Landscape Industry stakeholders, including:
- Singapore Landscape Industry Council (SLIC)
  - Industry Associations (LIAS, SAS etc)
  - Government, including through WDA
  - Business and Industries
  - Employers and Employees
  - Training Institutions and agencies
  - Employment and Employability agencies
  - Phase 1(b) activities (especially with secondary schools and National Service career agencies)

232. It is proposed at Green Thumbs to hold an official signing of a pledge that stakeholders can proudly display as an outward and visible sign of their commitment to the LAMPS initiative. The picture below gives an idea of what a "Pledge" could contain (and look like) It is merely intended to engage SLIC members' creativity about how LAMPS could be publicly supported to give
- A needed priority to LAMPS development
  - A mandate to the LAMPS Steering Reference Committee
  - A positive basis for the first NEWS story about LAMPS as a professional career path for Singaporeans



## REFERENCES

224. Dressler, U.-B. (2011). *Contact details for key specialty / employer / employee groupings in Landscaping / Horticulture profession in the Berlin & Brandenburg Region; overview of local / regional landscaping / horticulture profession; how the landscaping profession manages on the job training of apprentices; and identifying problems and issues.* Emails. Fachverband Garten-, Landschafts- und Sportplatzbau Berlin und Brandenburg e. V. Berlin. Retrieved 7, 11 & 12 July 2011 from [Dressler@galabau-berlin-brandenburg.de](mailto:Dressler@galabau-berlin-brandenburg.de)
225. Grossman, A., & Grecol-Herlich, N. (2011). *Year Up: A Social Entrepreneur Builds High Performance.* (pp 29) Boston MA: Harvard Business School (9-308-032). Retrieved May 2011 from [http://www.ccmp.ccmp.fr/ccmp-publishing/en\\_harvard/abstracts.asp?ref=9-308-032](http://www.ccmp.ccmp.fr/ccmp-publishing/en_harvard/abstracts.asp?ref=9-308-032)
226. McDowell, J., (Chair), Oliver, D., Persson, M., Fairbrother, R., Wetzlar, S., Buchanan, J., & Shipstone, T. (2011). *A Shared Responsibility: Apprenticeships for the 21st Century. Final Report of the Expert Panel.* (pp 131) Canberra: Department of Education, Employment and Workplace Relations. Retrieved February 2011 from <http://www.australianapprenticeships.gov.au/about/publications.asp>
227. NParks. (2006 – Synovate Business Consulting Report). *Landscape Industry in Singapore - Industry Overview.* (pp 20) Singapore: National Parks Board (1 Cluny Rd Singapore 259569).
228. NParks & WDA. (Undated). *Career Guide: The Green Job Scene, the work really grows on you.* (pp 37) Singapore: National Parks Board HQ (1 Cluny Road 259569).
229. Vial, D. (2011). *Labour Productivity Benchmark Study for the Landscape Sector : Final Report.* (pp 142) Singapore: e2i Employment and Employability Institute & CUGE Centre for Urban Greenery and Ecology – Career Centre.
230. Wolf, A. (2011). *Review of Vocational Education - the Wolf Report.* (pp 196) London: Department of Education, United Kingdom. Retrieved May 2011 from <https://www.education.gov.uk/publications/eOrderingDownload/The%20Wolf%20Report.pdf>

## GLOSSARY

Apprenticeship	A system of training regulated by law ,custom and/or Training Agreements which combines on-the-job training paid work experience usually combined with off-the-job training.
Apprentice Ratios	Relates to the number of Apprentices per supervisor in the workplace.
Attrition Rate	The measurement of the number of apprentices who leave training before completion.
Australian Apprenticeship Centre (AAC)	AACs are contracted to provide Australian Apprenticeships Support Services and to arrange for Training Contracts to be registered by State Training Authorities
Australian Qualifications Framework (AQF)	A nationally consistent set of qualifications for all post-compulsory education and training in Australia.
Australian School Based Apprenticeship (ASBA)	Apprenticeships undertaken while attending secondary school on a part time basis normally a Cert II level qualification.
Cancellations and withdrawals	Refers to apprentices whose contract of training has been terminated prior to successful completion.
Commencements or Starts (UK)	Refers to apprentices starting a program of training. The date of commencement is the date that a Training Contract is registered.
Competency-based Training	Progression through an apprenticeship dependent on the satisfactory completion of a number of competencies, and not solely tied to a specific duration
Completion Rate	The rate at which apprentices complete their contract of training. In Australia, United Kingdom and Germany this is generally fixed time contract; in New Zealand it is completion of Training Contract specified learning units based, so can take 5-10 years
Existing-workers	Those apprentices who were employed by their current employer for more than three months full-time prior to commencing their training contract.
Group Training Organisation (GTO)	An organisation in Australia, South Africa and recently, United Kingdom, which employs Apprentices under a training contract and places them with host , training employers. The GTO undertakes the responsibilities for the quality and continuity of the Apprentices' employment and training, including payment of wages.
Industry Skills Councils (ISC) – Australia Industry Training Organisation (ITO) – NZ Sector Skills Council – UK	Government supported peak agency which brings together industry, educators and governments to facilitate action on skills and workforce development; set and oversee Skills or Competency Frameworks ie Lantra in the UK for those in the land based or environmental sector. In Singapore industry-specific meetings of Stakeholder representatives (eg SLIC Singapore Landscape Industry Council) are convened to consider issues or development proposals.
Incentives	Motivating monetary stimulus serving to incite to action, can be employer or employee targeted
Mentor	A wise and trusted counsellor or teacher, especially in occupational settings.
National Apprenticeship Service (NAS) UK	The NAS now has end to end responsibility for Apprenticeships in England. See <a href="http://www.apprenticeships.org.uk/About-Us/National-Apprenticeship-Service.aspx">http://www.apprenticeships.org.uk/About-Us/National-Apprenticeship-Service.aspx</a>
NITEC	National Institute of Technical Education Certificate, Singapore
National Training Wage (NTW)	The Australian NTW sets the minimum wage rates for trainees which over-rides specific Awards
Off-the-job training or Off-Work-Site training (OWS)	The formal training conducted by an educational institution which in some cases may be performed at the workplace.
On-the-job training (OJT)	Training undertaken in the workplace by an Apprentice as part of their training contract.
Pathway	A route to or way of access to; way of reaching or achieving something ie Career Pathway
Pastoral Care	A supportive visit to apprentice's workplace or through apprentice contact with an Advisor or Mentor
Pre-apprenticeship course	An approved course undertaken prior to commencing an apprenticeship that may reduce the term of the apprenticeship if successfully completed.
Pre-vocational training	Pre-vocational training focuses on general preparation for employment, providing foundation skills for a range of training and employment outcomes
Recognition of Current Competencies (RCC)	The assessment of a person's current capacity to perform; it applies if an individual has previously successfully completed the requirements for a unit.
Recognition of prior learning (RPL)	Status or credit obtained for courses or subjects on the basis of recognised competencies gained previously through informal and formal training
Skills shortage	A labor shortage is an economic condition in which there are insufficient qualified candidates (employees) to fill the market-place demands for employment at any price.
Trade	A industry with specific and particular skills
Traineeship	In Singapore the word "Traineeship" has generally replaced "Apprenticeship." In other countries usually a shorter (1-2 years) apprenticeship.
Training contract	A legal contract of training which must be undertaken by Apprentices. The training contract includes the trade, the commencement date, the duration of training, details of the employer and training provider as well as the obligations of each party.
Training Plan	A Training Plan is developed in consultation before commencement or Start and is referred to in the Training Agreement..
Vocational Education & Training (VET)	Post-secondary education excluding University education.

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