

**DRAFT - Australian Tropical Fruit Industry
Industry Partnership Program**

Pathways Report



Prepared for

Department of Agriculture, Fisheries and Forestry in partnership with the
Australian Tropical Fruit Industry

by



November 2004

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1. Introduction

The Australian Federal Government Department of Agriculture, Fisheries and Forestry (DAFF), following discussions with industry service provider Growcom, agreed to extend the department's Industry Partnership Program (IPP) to the various sectors which comprise the Australian Tropical Fruit Industry.

Ridge Partners was then retained by DAFF to facilitate the development of an IPP for the Australian Tropical Fruit Industry, and make recommendations regarding IPP future direction and projects.

This process involved three stages:

Stage 1: collate and analyse industry data to develop a snapshot of the Australian Tropical Fruit Industry, and present this interim report to government and industry;

Stage 2: facilitate an industry workshop attended by all sector stakeholders to ascertain common key priority areas and establish goals for the IPP; and

Stage 3: develop a pathways report for the IPP which will set out goals, strategies and milestones established by industry and gives recommendations.

This report, as the pathways report, is a culmination of all three stages. It first details the concept of the Industry Partnership Program, and highlights the expected benefits to industry. It gives a snapshot of the industry context, which includes a definition of the sector, the overall maturity and resources, the value chain structure, global production and trends, industry profitability, industry and organisational capacity, and knowledge management issues.

The report outlines development and marketing trends, competition dynamics, and industry viability and sustainability. Following this, a SWOT analysis of the industry is presented.

The report goes on to detail the agreed goals and priorities of the Tropical Fruit IPP, as well as strategies to achieve these goals. Finally, the report recommends specific project activities to be taken forward.

2. Industry Partnership Program

2.1. Aims and objectives of the program

The Department of Agriculture, Fisheries and Forestry (DAFF) has established an Industry Partnership Program to support industry achieve long term competitiveness, profitability and sustainability.

The IPP aims to enable industries to build the structural, human and strategic capacity and pathways to be proactive in positioning themselves to respond to potential crises and opportunities.

DAFF see value in industry partnerships as a vehicle to achieve:

- joint strategic investment for government and industry;
- better targeting of training – particularly in areas where industry-specific strategies are needed (i.e. innovation, risk management, market skills and natural resource management);
- strategies relevant on the ground to producers;
- increased trust and collaboration as industry and government goals become better aligned;
- development of industry networks to reach a greater proportion of producers who are not yet participating in key programs;
- effective usage of industry leaders and their ability to influence; and
- assistance to producers facing difficult decisions.

IPP projects aim to build capacity based on strong engagement by industry in the design and delivery of the agreed projects.

2.2. Expected benefits to industry

It is expected that through the IPP, the Tropical Fruit Industry will gain the ability and resources to address ad-hoc threats and opportunities and to action these efficiently as a combined force.

At the Cairns Workshop, industry stakeholders (detailed in the following section) identified the following benefits as a result of the IPP:

- access to someone with power to listen to and act on behalf of the tropical fruit industry;
- opportunity for cooperation to help themselves;

- access to AHC (Australia Horticulture Council)/HAL (Horticulture Australia Ltd) board members and the ability to take information from these agencies;
- support for the case as custodians of the land in tropical Australia;
- employment multipliers for northern, regional Australia;
- increased tourism numbers;
- input supplier support and infrastructure;
- regional town support; and
- enhancement of regional and social capacity.

2.3. Structure for the IPP

The detailed stages in the IPP were:

Stage 1: Information gathering and industry analysis

- Collation and analysis of previous industry studies and reports
- Interviews with industry stakeholders across all sectors Growcom and HAL
- Identification of current risks and opportunities for the industry

Stage 2: Identifying specific initiatives

- Industry-led workshop to identify common KPAs (key performance areas), associated risks, and future needs
- Mobilisation of the Tropical Fruit IPP Taskforce (Taskforce)
- Consultation between the Taskforce's Core Working Group and Ridge Partners to identify goals for Tropical Fruit IPP under each agreed KPA
- Development of a Pathways Report by Ridge Partners for the Tropical Fruit IPP which recommends specific projects
- Development of a proposal to government for IPP funding by industry with the support of Ridge Partners

Stage 3: Execution of specific initiatives

- Engagement with consultants to develop projects for each specific initiative
- Employment of a coordinator to advance and coordinate organisational capacities
- Review of specific initiatives, and monitoring evaluation of project outputs and outcomes

3. IPP Sectors and Participants

Stage 2 of the project involved a industry-led workshop, held in Cairns on 20th September 2004. This workshop followed an earlier meeting (initiated and coordinated by Growcom) of industry to discuss the design of the IPP process.

Sectoral and stakeholder participants were drawn from each fruit sector within the combined Tropical Fruit Industry across industries in New South Wales, Queensland, and the Northern Territory.

Their names and affiliations are listed below.

Avocados Australia Ltd.

- Antony Allen
- Rodney Dalton

Australian Banana Grower's Council Inc.

- Vicky Kippin-O'Connor

Australian Papaya Industry Association

- Naomi King

Pineapple Special Interest Group of Growcom

- Gavin Scurr

Australian Passionfruit Industry Association

- David Peasley
- Keith Paxton

Australian Custard Apple Growers Association

- Bruce Sloper
- Patti Stacey

Rambutan & Tropical Exotic Growers Association

- Alan Zappala
- Brian Dodds

Australian Lychee Growers Association and Australian Longan Growers Association

- Tibby Dixon
- Helen Dixon

Australian Mango Industry Association

- Trevor Dunmall
- Joe Morro

Northern Territory Horticulture Association

- Tracey Leo

Horticulture Australia

- John Tyas

Growcom

- Richard Ross
- Jann Uhr
- Ted Callanan
- Keith Noble

DAFF

- Virginia Perkins
- Alain Samarcq
- Lisa Bloomfield

Queensland Department of Primary Industries and Fisheries

- Bob Williams

Ridge Partners

- Ewan Colquhoun
- Natasha Mulcahy

4. Tropical Fruit Industry Context

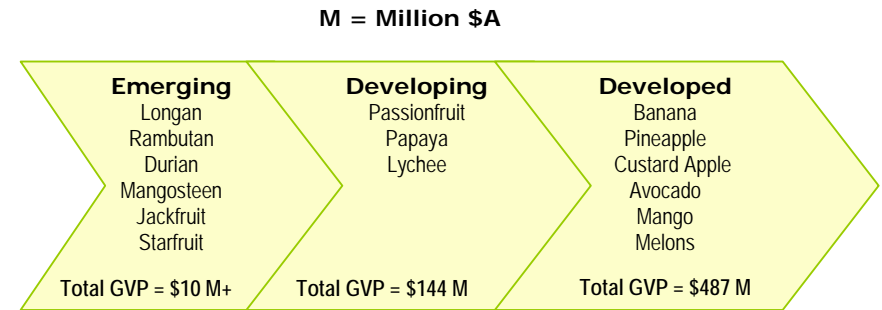
4.1. Definition of the Industry

The Australian tropical fruits industry is comprised of a number of product sectors produced across northern Australia. The diversity of Australia's sub-climates and agricultural production regions enables production of many tropical fruits in both tropical and temperate locations (see map below). These sectors include banana, mango, custard apple, passionfruit, avocado, lychee, longan, pineapple, rambutan, durian, pawpaw, and numerous other smaller sectors.



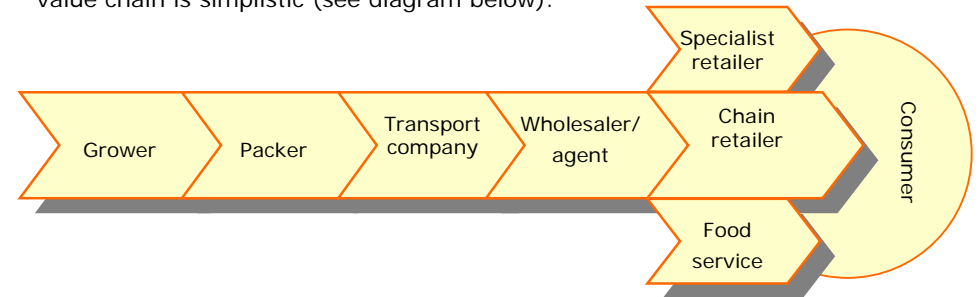
4.2. Overall maturity and resources

Within the industry there exists a wide variation in the level of individual sector maturity and resources. The diagram below divides the sectors according to their relative level of development.



4.3. Value chain structure

The industry value chain is highly focused on fresh product. Small enterprises dominate the industry, with the exception of banana and avocado growers. The level of value adding in the tropical fruit industry remains low relative to other horticulture sectors, and thus the typical value chain is simplistic (see diagram below).



Much of the price paid by consumers for tropical fruit produce is determined at the wholesaler/agent stage of the value chain. Wholesaler/agent mark-ups on produce are estimated at approximately 10 to 15 percent (varies across regions) (Howells, 2004). These intermediaries work with the large retailers to secure supply contracts. The selling price of tropical fruit produce is influenced by seasonal availability, availability of substitutes (including imports), and consumer spending.

4.4. Industry multipliers

At this stage, individual sectors have not attempted to collate information regarding industry multipliers. This is symptomatic of a general information deficit within the industry. Growcom (a service provider to several tropical fruit sectors), in association with Horticulture Australia, will soon release value chain data as part of a research and policy development project. This project seeks to:

- develop a snapshot of the major drivers of the food industry (especially horticulture) in a global context;
- aid understanding of the structures and issues influencing value chain participants;
- investigate issues affecting horticulturalists and their impact on relationships across the value chain;
- identify and analyse differing business models; and
- examine the role of Growcom and HAL in supporting growers.

Preliminary research outcomes of this project suggest the following key performance areas important for future growth:

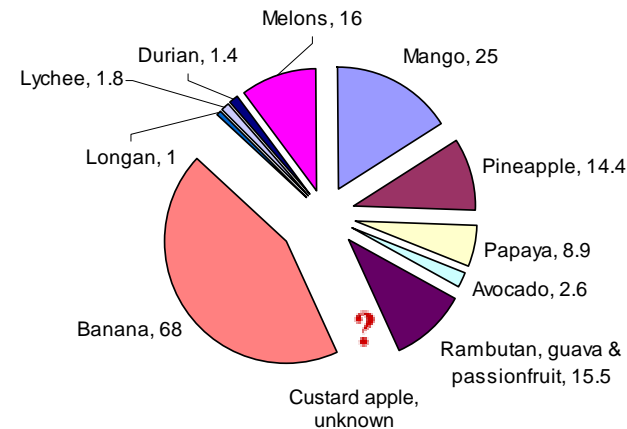
- entrepreneurship and industry leadership;
- information provision;
- marketing and business skills;
- development of linkages and synergies;
- financial skills;
- business mentoring, coaching and support; and
- systems development.

4.5. Global product, utilisation and trade

World production of tropical fruits (excluding banana) increased by more than five percent per annum between 1991 and 2000, reaching 60 million tonnes. This increased production has led to a downward trend for tropical fruit prices. However, more recent reports suggest that year-on-year production growth is slowing (down to approximately 1.5 percent) – indicating a less volatile future market.

Over the same period, world banana production also grew rapidly – estimated at a cumulative 30 percent (averaging 3 percent per annum). This high growth has also slowed since the global industry has moved into maturity. The total value of international banana trade is estimated at US\$5 billion per year.

WORLD TROPICAL FRUIT PRODUCTION (million tonnes)



Developing countries account for approximately 98 percent of world production, while developed countries absorb approximately 80 percent of total imports (The EU and US take 70% between them).

Across the world, banana is the most heavily produced tropical fruit, followed by mango, pineapple, papaya and avocado. Asia dominates world production of tropical fruit, accounting for 70 percent of total production. Latin America and the Caribbean together produce approximately 15 percent, while Africa produces nine percent. Oceania, the United States and Europe produce the remaining six percent.

World trade is dominated by bananas and pineapples; however trading has increased for other product categories. With Europe as the key export market, trade disputes almost entirely relate to product safety and quality – common concerns among European legislators and consumers. India is the largest producer of tropical fruit; however domestic consumption absorbs all but 0.5 percent of product. Thailand, Costa Rica and Mexico are the major world exporters, while Thailand and the Philippines are the major processors of tropical fruits.

4.6. Global trends

Industry leaders identified the following global trends for the tropical fruit industry:

- increasing dominance by low-cost, 3rd world producers;
- increasing biosecurity risks – driven by high levels of travel and trade;
- increasing significance of trade barriers – increasing importance of government policy and government ability to negotiate;
- increasing cohesion across tropical fruit sectors;
- continued subsidisation of competitors overseas;
- increasing burden of compliance costs; and
- growing expectation by stakeholders of “best data”.

4.7. Determinants of Australian industry profitability

Industry leaders identified the following factors which typically determine the profitability of enterprises within the Australian industry:

- enterprise to market ratio;
- size of farm – for most industries medium size farms seem to create opportunity for greater profitability;
- location of enterprise – varying soil, climate and infrastructure;
- risk reduction through mixed farming; and
- level of competition – impact from alternate crop growers.

4.8. Industry profitability, productivity and efficiency data

Throughout most of the tropical fruit sectors there remains a considerable lack of industry profitability and efficiency data. The key causes of this deficit are:

- Limited resources of industry associations to collect, compile and analyse data
- Reluctance of growers to release data relating to enterprise profitability
- Culture of competitiveness within Australian industry – growers do not want competitors to gain access to their enterprise data
- Lack of overall transparency of prices and margins throughout the tropical fruit value chain

As a result of this data deficit and the lack of trust between producers and other members of the value chain, industry associations are limited in their ability to promote growth and efficiency through the following means:

- domestic industry benchmarking;
- international industry benchmarking with world best producers;
- production forecasting;
- data modelling;
- coordinated control of demand and supply;
- quality control; and
- human resources development and training.

4.9. Industry capacity

The following table details the current tropical fruit industry capacity.

	Melons	Banana	Passionfruit	Avocado	Custard apple	Lychee	Longan	Pineapple	Rambutan	Mango	Papaya	Durian	Mangosteen
Number of enterprises	Approx 360	1,943	approx. 300	1,300	270	250 commercial	50-60 commercial	140	100	1800	150-200	55	20
Total Area (hectares)	Approx 9000	14500	250+	N/A	unavailable	2000	unavailable	6000	150	unavailable	500	40	50
Estimated annual production (tonnes)	Approx 135 000 tonnes	314,950	4000	30,000	3500	6000 (f)	600	120,000 – 140,000	680	60,000	14,400	80-90	100
GVP at farmgate (\$ million)	Approx \$90m	245-295	10	50	7	25.75 (f)	2.6 (f)	40	5	120	18	0.5-0.75	1
Percentage of product exported	10%	0%	less than 2%	N/A	approx. 20%	30%	10% (max)	0%	25%	10%	less than 1%	0%	unavailable
Number of employees	unavailable	5000	unavailable	N/A	450	3000 (max)	300 (max)	500 FTE	150 permanent + 220 casuals	unavailable	approx. 500	Up to 50	Up to 50
Industry representative body	Australian Melon Assoc. Inc	Aust. Banana Growers Council Inc.	Australian Passionfruit Industry Association (APIA)	Avocados Aust. Ltd.	Australian Custard Apple Growers Association	Australian Longan Growers Association	Australian Lychee Growers Association	Pineapple Special Interest Group represented by Growcom	Rambutan Tropical Exotic Growers Association (RTEGA)	Aust. Mango Industry Association (AMIA)	Australian Papaya Industry Association	RTEGA	RTEGA

Data sourced from FAO, Queensland DPI & F, Australian Banana Growers Council Inc. [online], RIRDC, industry strategic plans and grower interviews
Number of employees is taken at best available estimate by industry representatives, FTE = full-time equivalents

4.10. Human capacity

Limited knowledge of employment and human capacity dynamics is common across all tropical fruit sectors. Much of this is due to the very transient nature of the workforce; however the culture of the industry also plays a part – with little value placed on human resources.

Human resources are becoming an increasingly important issue for the industry, with many sectors citing decreasing staff availability and rising labour costs as their greatest current challenge.

In 2003, Growcom, in partnership with the University of Queensland, released a research report which identified characteristics of the seasonal labour force for horticulture. This report identified five key subgroups within the labour force:

1. permanent Itinerants (greatest proportion of seasonal labour force, but decreasing, more males than females, mid 20s to 40s);
2. retirees (Increasing proportion, genders represented equally, aged 40s to 50s and some early 60s);
3. Working Holiday Makers from Overseas (increasing proportion; genders equally represented, aged 18 to 30, but mostly early 20s);
4. Australian Working Holiday Makers (small proportion, genders equally represented, small groups of friends or couples); and
5. students (small proportion, genders equally represented, most aged in 20s, small groups of friends).

4.11. Organisational capacity

	Melons	Banana	Passionfruit	Avocado	Custard apple	Lychee	Pineapple	Rambutan & other industries	Mango	Papaya	Industry service providers	
Organisation name	Aust. Melon Assoc. Inc.	Aust. Banana Growers Council Inc.	Australian Passionfruit Industry Association (APIA)	Avocados Aust. Ltd.	Australian Custard Apple Growers Association	Australian Lychee Growers Association (also represents longan growers)	Pineapple Special Interest Group represented by Growcom	Rambutan Tropical Exotic Growers Association (RTEGA)	Aust. Mango Industry Association (AMIA)	Australian Papaya Industry Association	Growcom Provides services to members	NTHA Provides services to members
Organisation												
Current strategic plan	2003-08	2000 – 05	2002-05	2000 – 05	2001 – 05	2003-08	2002-05	varied	2004-09	2003-2008	2003-2005	2004-2009 draft
AGM	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓
Seminars/conferences	✓	✓	✗	✓	✓	✓	✓	✓	✓	✗	✓	✓
Grower database	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Production database	✗	✓	✗	✓	✓	✓	✓	✗	✗	✓	✓	✗
Newsletter	✓	✓	✓	✓	✓	✓	✓ (Growcom)	✓	✓	✓	✓	✓
Human Resources												
Development & training	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✓
Formal leadership programs	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗
Counselling	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗
Value Chain												
Supply chain alliances	✓	✓	✗	✓	✓	✗	✓	✓	✗	✗	✓	✓
Value chain input data	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗
Benchmarking	✗	✓ (domestic)	✗	✗	✓ (domestic)	✗	✗	✗	✗	✗	✗	✗
R&D	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Extension*	✗ newsletters	✓	✓	✓	✓	✓	✓	✓	✓	✓	RWUIE/IDOs	in development
Formal means to encourage innovation	✓ newsletters	✓	✓	✗	✓	✗	✗	✗	✗	✗	✓	✗
Marketing												
IT – databases	✓	✓	✗	✓	✓	✓	✗	commercial	in development	✗	✓	✓
website	✓	✓	✗	✓	✓	✓	✗	✗	✓	✗	✓	in development
Market intelligence systems	✗	✓	✗	✓	✓	✓	commercial	commercial	✓	✓	✗	✗
delegations	✗	✗	✗	✓	✓	✓	✗	✗	✓	✗	✓	✗
Food standards management**	✗	✓	✓	✗	✓	✓	✗	✓	✗	✗	N/A	N/A
Environment												
BMP/EMS	✗	✓	✓	✗	✗	✓	✓	✓	✗	✗	✓	#
Biosecurity	✗	✓	✗	✓	✗	✓	✓	✓	✓	✗	✓	#

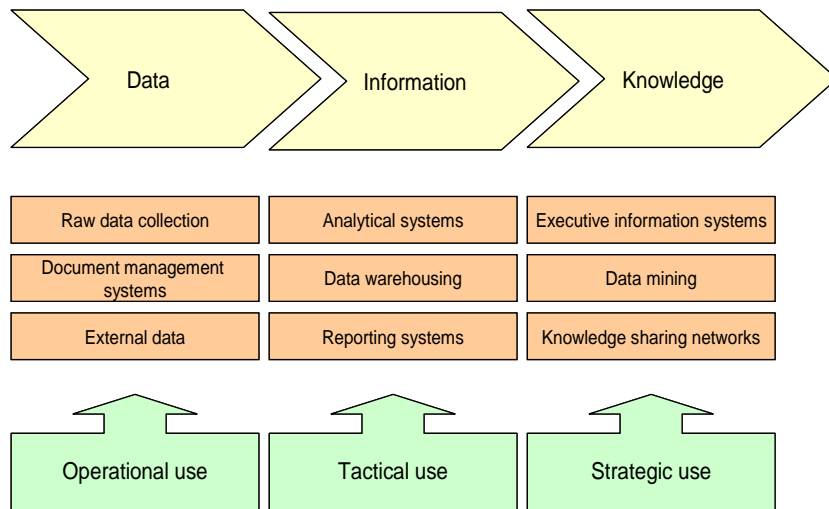
✓ Existing service or capacity. *Most industry extension is carried out by the Queensland DPI & F and other state agencies. **Most industry organisation leaders feel that food standards management is an issue well-managed by growers, and does not require attention from industry. # In development with Landcare Australia

As expected, the more mature sectors such as banana or avocado possess peak bodies which are better resourced and as a result able to provide a greater range of services to growers and stakeholders. However, as the organisational capacity table shows, there are considerable gaps in organisational services and functions across all tropical fruit sectors.

4.12. Knowledge management across industries

Across all tropical fruit sectors with the exception of banana, there exists a deficit of systematic knowledge management (illustrated in table 4.11). Knowledge management systems allow industries to collate longitudinal data in a uniform format. Efficient knowledge management systems increase ease of access to industry data, and facilitate informed decision making processes. The diagram below illustrates a typical knowledge management system. The orange boxes in the centre form the decision support portfolio for all levels of use.

4.13. Knowledge Management System



To date, most tropical fruit sectors have not had sufficient resources to conduct snapshot-style research examining industry dynamics. This has led to great levels of industry uncertainty regarding employment, total farming area, and exports.

In an industry dominated by third-world producers with significant comparative advantage in labour costs, Australian producers must leverage their superior knowledge access to remain competitive. The ability of industry sectors to collate data and share knowledge – both within Australian circles and with international competitors – will be a critical determinant for future growth.

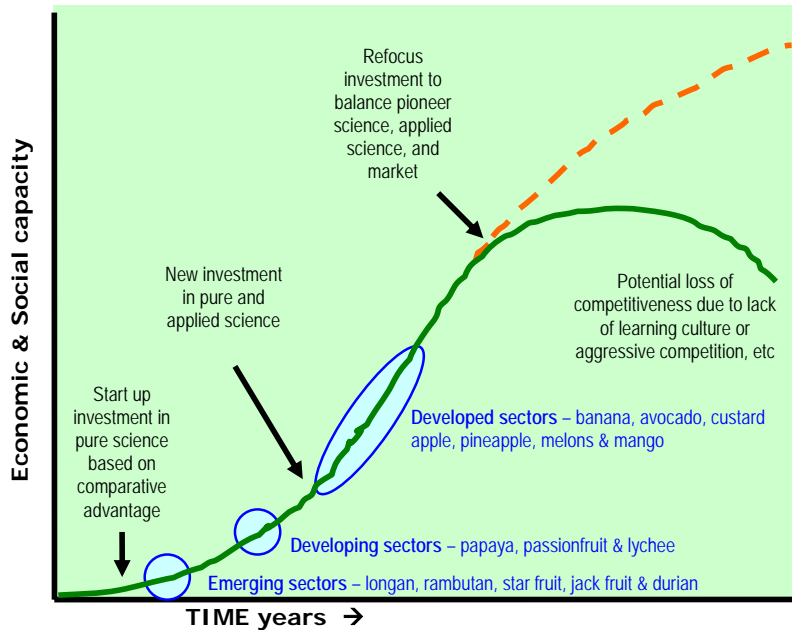
4.14. Future needs

The industry stakeholders determined the following needs will drive their sustainable development:

- greater industry cohesion for efficient management of resources;
- ability to provide immediate access to information relating to biosecurity, factors affecting price etc.;
- cooperation within industry to effectively manage demand and supply; and
- knowledge sharing capacity to allow innovation diffusion within industry.

4.15. Development trends

The diagram below illustrates the development trends for the sectors within the tropical fruit industry.



4.16. Marketing trends

The more developed sectors have focused recent marketing efforts in:

- developing improved products which cater to consumer demand;
- export market development;
- increasing consumer confidence in products (including GMOs); and
- product promotion to increase consumption.

The less developed sectors have generally dedicated marketing resources to:

- building consumer awareness;
- encouraging product trial;
- improving the product (taste, in-store life); and
- increasing access to international markets.

In Hawaii, another first-world tropical fruit producer (but comparably minor industry player), recent marketing efforts have centred on commodity diversification, developing a 'Hawaii brand' for tropical fruit, and value-adding for increased margins (Youn, 2004).

4.17. Distribution

Hawaiian producers are also looking to market consortiums as a means of accessing larger distribution channels. This type of industry cooperation has already been seen in some parts of the Australian industry. However, market consortiums can also be of detriment to many growers. Already within the Australian market there has been a trend toward the large supermarkets appointing one supplier/agent for each product category. This reduces access to the consumer market for growers, and increases competition for supply contracts with the retailer's appointed agent.

4.18. Promotion

Like many other Australian agricultural industries, the tropical fruit industry has opportunity to take advantage of growing consumer preference for 'clean and green' products. This is an attribute on which conventional producers from developing nations are not yet able to compete. Yet while this advantage is significant, low-cost organic production has already emerged within developing nations – mainly China, India and Thailand.

In most circumstances, these enterprises have been backed by value-adders from Europe or Japan, seeking large quantities of low-cost organic produce. However while the total Chinese organic industry is valued at more than US\$1.2 billion, their current reliability and product quality grading is below the standards of western producers.

4.19. Consumer profile

Industry leaders have identified the following domestic consumer profiles for each of the tropical fruit sectors.

Sector	Domestic Consumer Profile
Banana	Mainstream bananas (Cavendish, ladyfinger) – pregnant women, children, less consumed by teenage girls and young women (perceived as fattening) Exotic bananas – Pacific Islanders, Vietnamese, older consumers
Passionfruit	No consumer profiling has been conducted
Avocado	Consumers over 30 years buy more than those under 30 years Greater purchasing by those consumers earning \$50,000+ per year
Custard Apple	Asian, 80% of product sold through smaller grocers European Australians – older market 60+ years
Lychee	Domestic market primarily Asian migrants or of Asian heritage
Longan	Domestic market primarily Asian migrants or of Asian heritage
Pineapple	Fresh pineapple – 30 to 50 years Canned pineapple – older consumers
Rambutan	Domestic market primarily Asian migrants or of Asian heritage
Mango	Consumer research commissioned through HAL – results pending
Papaya	Mostly 45 years + Older consumers prefer pawpaw, younger prefer papaya Asian main demographic that uses for cooking rather than just fresh consumption
Durian	Domestic market primarily Asian migrants or of Asian heritage
Mangosteen	Domestic market primarily Asian migrants or of Asian heritage
Melons	Mostly 60 years +

4.20. Value proposition

Industry leaders identified the following attributes of their product category as possible value propositions for consumers:

- smorgasbord of taste;
- no “bad” fat;
- new, exotic experience;
- unique consumer experience of tropical lifestyle; and
- vitamins and nutritional benefits.

However, leaders also conceded that the industry needs to address the following consumer related weaknesses:

- moving beyond traditional markets;
- no capacity to promote;
- need for systems to create new customers; and
- creating positive consumer experience.

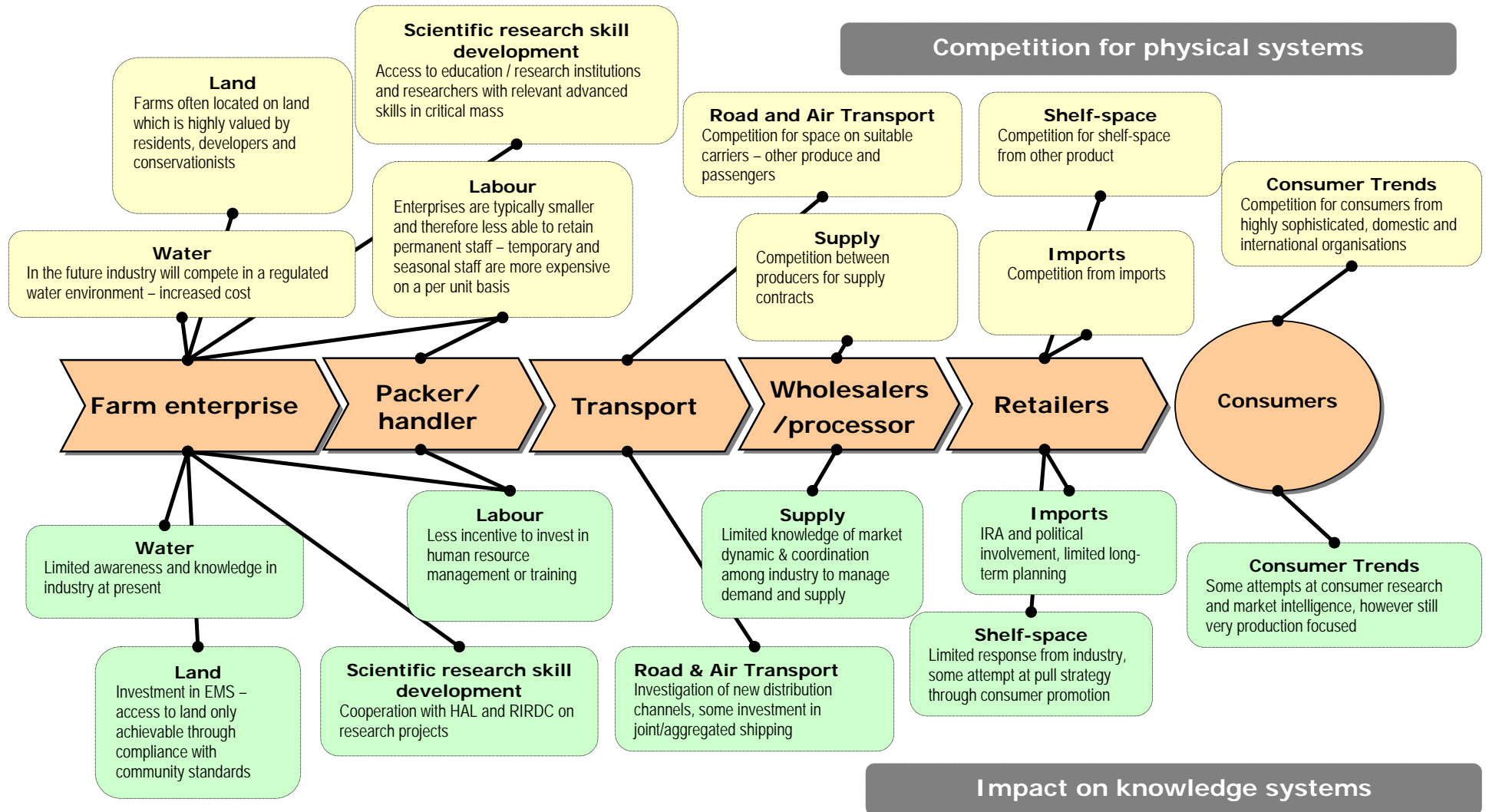
4.21. Consumer market for tropical fruit

According to RIRDC market intelligence, “consumer demand is for the tropical fruit category rather than any one individual fruit and the market growth will be more easily achieved by moving the category forward, rather than individual crop segments. This now becomes a challenge to industry to establish a supply chain strategy that encompasses all fruits that are considered tropical in the eyes of the consumer, not the grower” (O’Connor and Diczbalis, 2003, p.vi).

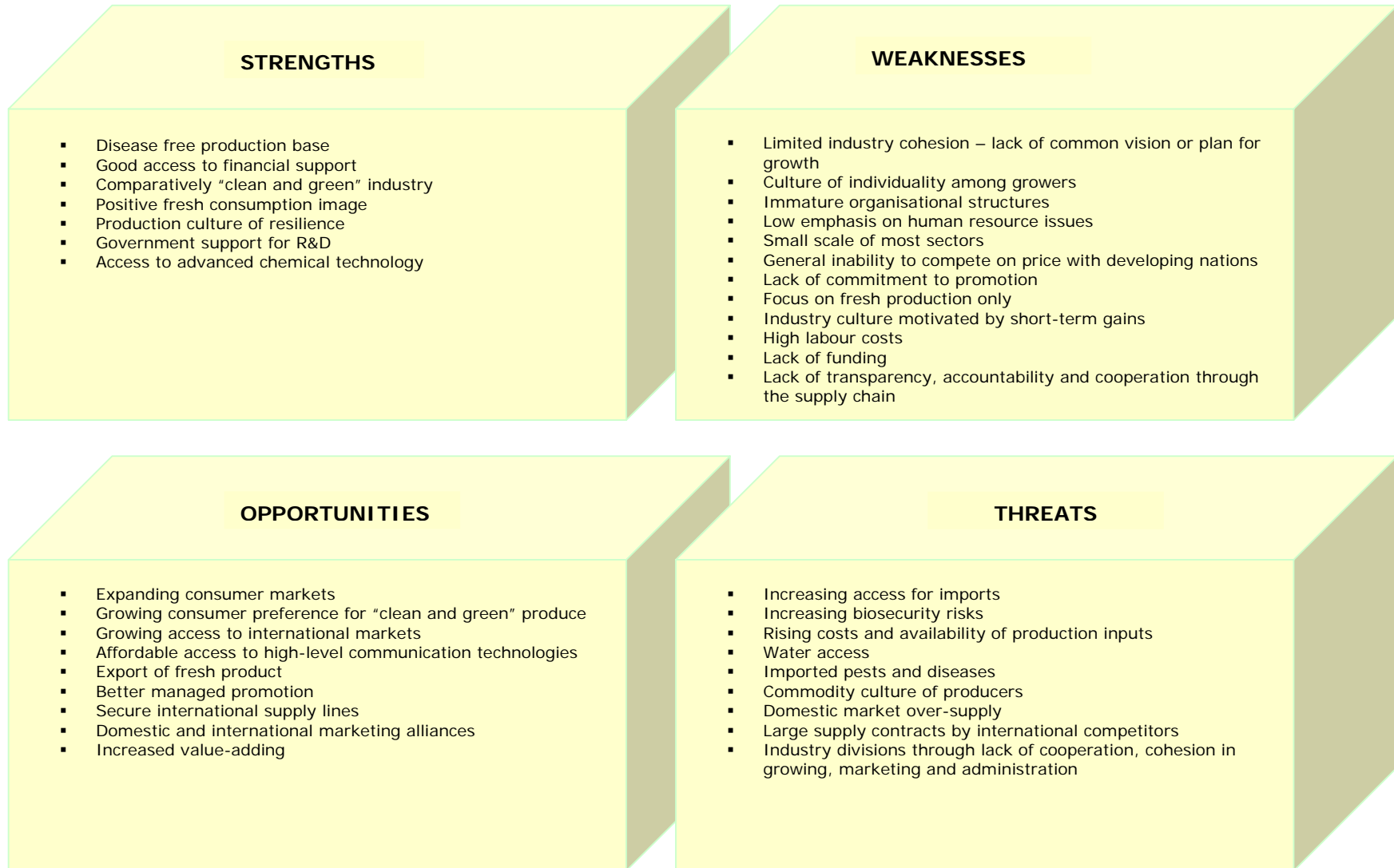
Whilst this research finding only relates to emerging sectors, it does add further evidence to the argument that this IPP is well-placed as a vehicle through which the Australian tropical fruit industry can capitalise on market dynamics and consumer preference.

4.22. Competition through the value chain

The following diagram illustrates competition faced by tropical fruit industry participants for access to inputs and markets across the value chain. The green boxes below the value chain indicate the impact of this competition on knowledge systems within the industry.



4.23. Industry SWOT analysis



4.24. Industry outlook

Available market intelligence suggests Australian consumer demand for tropical fruit is increasing. Many international markets are also experiencing growth. For example, US consumer spending on passionfruit increased by 68% in 2003 on the previous year. US consumers also spent 32% more on lychees, and 31% more on star fruit over the same period. Market analysts credit much of this demand to the growth of chain, specialty-food retailers such as Whole Foods Market and Wild Oats Markets (McLaughlin, 2004).

According to Austrade (2004), the volume and variety of imported fresh fruit to Japan has been steadily rising. Mangoes and rambutans in particular represent market opportunities for Australian tropical fruit producers in Japan. Market opportunities also exist for Australian producers in South-East Asia, Europe and the UK (Austrade, 2004).

The key hurdles to future growth for the Australian tropical fruit industry are likely to be its ability to achieve critical mass needed to supply consistent quality product to domestic and export markets, and its ability to compete on price with world-best producers. There is a significant risk that industry structures and systems to manage information and new knowledge will not be sufficiently robust to underpin the strategies to achieve this outcome.

4.25. Industry sustainability

At present, most of the tropical fruit industries do not have a coordinated approach towards environmental management. Natural Resource Management (NRM) awareness and risk are currently managed by the Growcom organisation on behalf of a number of tropical fruit sectors.

According to Growcom, optimising water use efficiency is an important issue for all of the irrigated crop growers (all tropical fruit growers industries except for some banana and pineapple growers).

The Australian banana sector has in recent years embraced the ISO14000 system – a global standard approach to EMS. ISO14000 provides a framework for the development of an environmental management system and the supporting audit programme.

However despite some success by the banana sector with this approach, Growcom recommends an integrated “Farm Management System” (FMS) approach for smaller industries, which unlike the banana industry, do not have the resources to effectively implement ISO14000.

Growcom argue that an FMS type model is more valuable for growers because it will help them deal with their market/customer demands, community pressures, environmental regulations and business management needs through the one process and help growers identify opportunities for efficiency in paperwork and record keeping.

It is expected that Australian society will become increasingly demanding of industry for environmental assurance. This includes both natural flora and fauna protection. The industry will also be susceptible to international scrutiny, given the proximity of farms to world heritage sites including the Great Barrier Reef. Industry should not underestimate the cost this will have on producers, and the need to maintain a coordinated approach to the issue. The following table outlines some environmental issues and responses for individual sectors.

4.26. Natural resource management issues and industry response

The following table details current NRM priority issues for the different tropical fruit sectors. Industry responses are given in the right-hand column.

Tropical Fruit	Priority environmental/natural resource issues	Industry responses*
Banana	<ul style="list-style-type: none"> ▪ Risk of sediment and nutrient run-off or leaching from farms to water ways and the GBR lagoon ▪ Lack of adequate riparian vegetation on many farms to buffer waterways from farming activities ▪ Management of solid and liquid wastes, particularly waste fruit and plant matter and large volumes of waste water from packing sheds ▪ Feral animals (pigs) 	<ul style="list-style-type: none"> ▪ Strong industry drive towards encouraging uptake of certified environmental management systems in banana enterprises. A significant proportion of the industry has achieved certification to the ISO14001 standard. ▪ Strong grower involvement in EMS case studies and support projects coordinated by QFVG and Old Horticulture Institute. EMS resource materials available through Growcom. ▪ Grower involvement in water quality monitoring projects. ▪ Strong industry investment in pest management and soil health research. ▪ Increased use of fertigation to help achieve improved targeting and management of fertiliser application.
Papaya / Pawpaw	<ul style="list-style-type: none"> ▪ Risk of sediment and nutrient run-off or leaching from farms to water ways and the GBR lagoon ▪ Lack of adequate riparian vegetation on many farms to buffer waterways from farming activities 	<ul style="list-style-type: none"> ▪ Industry involvement in EMS projects. EMS resource materials for papaya enterprises available through Growcom. ▪ Formation of fertiliser management grower group to investigate technical issues and support increased uptake of current recommended practices.
Lychee / Longan / Rambutan	<ul style="list-style-type: none"> ▪ Sediment and nutrient run-off issues are less significant in these tree cropping systems ▪ Management of problem native wildlife a major issue (flying foxes) 	<ul style="list-style-type: none"> ▪ Some use of orchard netting, where physically and economically viable. ▪ Some industry investment in chemical deterrents for flying foxes. ▪ RTEGA had discussions with the Productivity Committee who were examining how the EPBC Act 1998 had impacted on landholders.
Pineapple	<ul style="list-style-type: none"> ▪ Major concerns regarding sediment run-off and its impact on waterways, Pumicestone Passage, Moreton Bay. Deposition of sediment from pineapple farms has caused blocked roads in some districts. ▪ Lack of adequate riparian vegetation on many farms to buffer waterways from farming activities 	<ul style="list-style-type: none"> ▪ Investment by Golden Circle in identification of improved management practices and research into soil health and stability. ▪ Golden Circle and Environmental Protection Agency have recently supported growers in four regions to go through the Growcom two day training course "Introduction to environmental management for horticultural enterprises".
Mango	<ul style="list-style-type: none"> ▪ Management of problem native wildlife a major issue (flying foxes) becoming an increasing problem in many districts. 	<ul style="list-style-type: none"> ▪ Unknown.
Passionfruit	<ul style="list-style-type: none"> ▪ High pest and disease pressure 	<ul style="list-style-type: none"> ▪ Breeding program to develop resistant varieties. ▪ Biological and IPM strategies being implemented.
Avocado	<ul style="list-style-type: none"> ▪ Suitable application of high quality water 	<ul style="list-style-type: none"> ▪ Project completed in WA to identify water needs, however no measures taken to ensure needs are met.
Custard Apple	<ul style="list-style-type: none"> ▪ Growing need for irrigation water 	<ul style="list-style-type: none"> ▪ No coordinated response to date.
Durian	<ul style="list-style-type: none"> ▪ Pest control using socially acceptable methods 	<ul style="list-style-type: none"> ▪ R&D focussing on more environmentally sound pest-control chemicals and methods. ▪ RTEGA had discussions with the Productivity Committee who were examining how the EPBC Act 1998 had impacted on landholders.
Mangosteen	<ul style="list-style-type: none"> ▪ Pest control using socially acceptable methods ▪ Netting costs and applicability 	<ul style="list-style-type: none"> ▪ R&D focussing on more environmentally sound pest-control chemicals and methods. ▪ RTEGA had discussions with the Productivity Committee who were examining how the EPBC Act 1998 had impacted on landholders.
Melons	<ul style="list-style-type: none"> ▪ Haven't developed priorities as an industry 	<ul style="list-style-type: none"> ▪ No coordinated response.

*This is not a comprehensive listing of issues or responses Table modified by Ridge Partners from original prepared by Growcom, 2004.

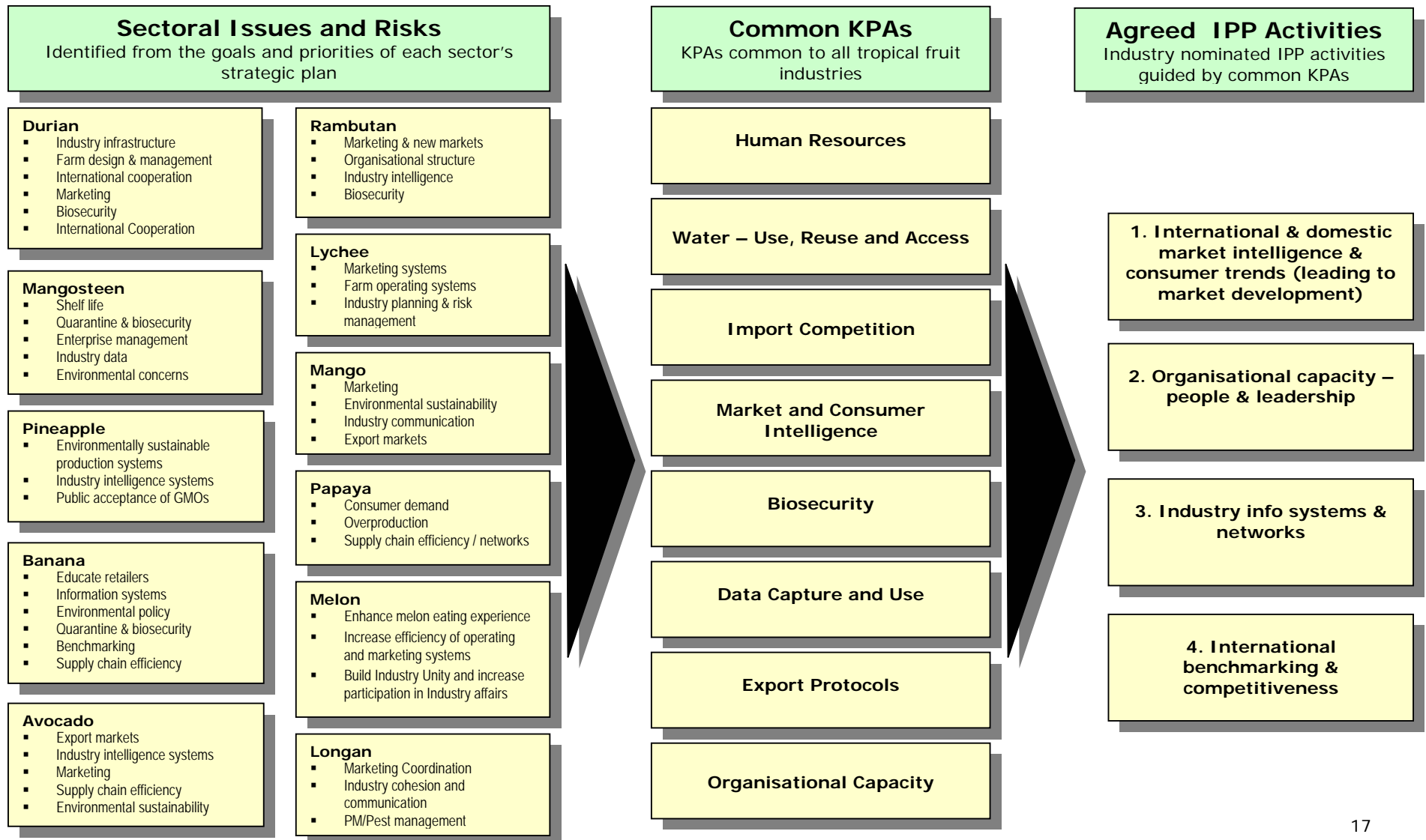
4.27. Industry Goals and Priorities

The following table presents the goals and priorities of each tropical fruit sector, as outlined in their most recent strategic plan.

<p>Durian 2001-06</p> <ul style="list-style-type: none"> ▪ Reliable varieties ▪ Nursery supplies ▪ Farm design and management ▪ Pest and disease control ▪ Nutrition ▪ Irrigation ▪ Harvest maturity ▪ Industry infrastructure ▪ Tropical tree crop research liaison ▪ International cooperation ▪ Maturity standards ▪ Promotion ▪ Transport ▪ Packaging ▪ Marketing ▪ Export potential ▪ Value adding 	<p>Longan 1997</p> <ul style="list-style-type: none"> ▪ Varieties ▪ Tree culture ▪ IPM / Pest management ▪ Post harvest ▪ Markets ▪ Marketing coordination ▪ Unplanned industry growth ▪ Industry cohesion and communication 	<p>Rambutan 2003</p> <ul style="list-style-type: none"> ▪ Bird and bat management ▪ Nutrition and irrigation management ▪ Canopy management strategies ▪ IPM (Pests) ▪ IPM (Disease) ▪ Post-harvest shelf life ▪ Post-harvest disinfestation treatments ▪ Fruit quality standards ▪ Grower and exporter registration ▪ New market opportunities ▪ Packaging standards for domestic & export markets ▪ Product promotion ▪ Import risk analysis & quarantine ▪ Organisational structure ▪ Industry statistics and position evaluation 	<p>Mangosteen 1997</p> <ul style="list-style-type: none"> ▪ Inferior quality fruit ▪ Crop management ▪ Shelf life ▪ Floral manipulation ▪ Herbicides ▪ Fruit quality ▪ Packaging ▪ Safe food accreditation ▪ Unidentified markets ▪ Imports ▪ Quarantine – industry protection ▪ Organisational structure – national industry ▪ Industry data availability ▪ Enterprise management – grower skills ▪ Environmental concerns ▪ Long juvenile stage ▪ Industry expansion 	<p>Mango 2004 -09</p> <ul style="list-style-type: none"> ▪ Deliver to the consumer in terms of eating quality and satisfaction ▪ Build domestic market consumption through marketing and promotion ▪ Improve marketable yield, plantation profitability and environmental sustainability ▪ Develop and maintain excellent communication throughout industry ▪ Support development of new export markets and maintain and further develop existing markets
<p>Banana 2002 -05</p> <ul style="list-style-type: none"> ▪ Identify Asia/Pacific export markets ▪ Raise banana profile with consumers ▪ Educate retailers about product integrity ▪ Establish points of ownership transfer in the supply chain ▪ Better information to growers for better management decisions ▪ Enhance the biennial congress ▪ Provide input to environmental policy locally and nationally ▪ Improve production systems ▪ Focus on adequate border protection ▪ Use benchmarking to gather industry data and intelligence ▪ Provide more data on critical points in supply chain to ensure product integrity ▪ Develop a model for more effective structure and funding of peak body ▪ Ensure effectiveness of agri-political bodies and import committee ▪ Maintain control over industry R&D 	<p>Avocado 2000 -05</p> <ul style="list-style-type: none"> ▪ Maintain an effective peak body ▪ Double domestic per capita consumption ▪ Achieve 5% of domestic production to export markets by 2005 ▪ Increase industry profitability through identification of production gains, scale economies, and better satisfying market requirements ▪ Encourage group approach to marketing and distribution ▪ Achieve commitment to quality through the value chain ▪ Drive development of quality standards in the industry ▪ Improved and more sustainable management practices ▪ Effective production and post harvest R&D focussed on market development opportunities and sustainable profitable production ▪ Increase adoption of R&D outcomes ▪ Increase funding options for current and future research and development 	<p>Pineapple 2002 -08</p> <ul style="list-style-type: none"> ▪ Industry to use and promote environmentally sustainable production systems ▪ Create and supply products that exceed consumer expectations ▪ Ensure mechanisms in place to identify industry issues and enhance cohesion ▪ Work with other industry to achieve public acceptance of GMOs ▪ Develop and implement innovative, cost-effective production systems 	<p>Custard Apple 2001</p> <ul style="list-style-type: none"> ▪ Develop ongoing leadership of ACAGA management ▪ Develop human resources needed for future regional representation on the ACAGA management Committee ▪ Increase consumer confidence and satisfaction with Australian Custard Apples ▪ Unify members of the Australian Custard Apple Industry, so that a strong, informed group is formed ▪ Retain experienced growers in the industry, so high quality of fruit is produced and marketed ▪ Educate new growers in the industry – latest technology, processes, etc., so that high quality fruit is produced and marketed 	<p>Papaya 2003 -08</p> <ul style="list-style-type: none"> ▪ Increase consumer demand for fresh and value added papaya ▪ Tackle increased competition – overproduction and reduced prices ▪ Secure industry funding for R&D, promotion and market development ▪ Enhance supply chain effectiveness and quality ▪ Establish grower and supply chain networks, based on trust ▪ Build community awareness of and endorsement for the industry
<p>Melons 2003 -08</p> <ul style="list-style-type: none"> ▪ Enhance melon eating experience of consumers ▪ Increase the efficiency of operating and marketing systems ▪ Build industry unity and increase participation in Industry affairs 		<p>Lychee 2003 -08</p> <ul style="list-style-type: none"> ▪ Increase consumer demand ▪ Better marketing systems ▪ Better farm operating systems ▪ Controlling destiny as an industry – grower involvement, commitment to planning and risk management 		<p>Passionfruit 2002 -05</p> <ul style="list-style-type: none"> ▪ Increase profitability for all industry participants ▪ Develop and implement improved sustainable, best-practice farming systems ▪ Organise industry roles and subcommittees to address industry objectives and assist with general industry management ▪ Provide farm management guidelines for passionfruit growers

5. Industry KPAs and Potential IPP Activities

The following diagram illustrates the shared development pathway and agreement of proposed IPP activities by industry leaders at the Cairns Workshop. These KPAs are presented in more detail on the following page.



5.1. Priority areas and associated risks

These key performance areas (KPAs) and associated risks were established by industry leaders at the Tropical Fruit IPP Workshop in Cairns, on 20th September 2004. Given the risks associated with each KPA, industry leaders determined the capacity needed by the industry in each area.

	KPA 1. Market Intelligence & consumer trends	KPA 2. Organisational capacity	KPA 3. Industry infosystems and networks	KPA 4. International benchmarking and competitiveness
Risks	<ul style="list-style-type: none"> ▪ No human resources to collect ▪ No market ▪ Wasted resources ▪ Industry investment & development based on bad market data ▪ Loss of market share to competitors ▪ Loss of opportunities to world market alliances ▪ No attention to category management – lack of access to shelf space 	<ul style="list-style-type: none"> ▪ High staff turnover ▪ Poor leadership ▪ Loss of good people ▪ Loss of corporate history ▪ Poor/lack of advice ▪ Dysfunctional growth & culture ▪ Ineffective ▪ Lack of \$/resources ▪ Poor planning ▪ Loss of good people 	<ul style="list-style-type: none"> ▪ Lack of awareness of issues ▪ Duplication – waste of resources ▪ Loss of human capacity ▪ Lack of capability to communicate/leverage govt. ▪ ABS/ABARE say “no” to more data collection ▪ Basing investment in marketing, R&D etc on poor data ▪ Poor/no links across tropical fruit sector 	<ul style="list-style-type: none"> ▪ Lack of awareness of competitors results in misallocation of resources & loss of market share ▪ Missed opportunities for learning from competitors ▪ Bad long term decisions made ▪ Cost base remains too high ▪ Loss of opportunities ▪ Loss of competitiveness ▪ Loss of IP to competitors
Capacity to be established	<ul style="list-style-type: none"> ▪ Domestic & international market intelligence ▪ Human resources to access info and disseminate on annual basis ▪ Intelligence for tropical fruit category and by sector 	<ul style="list-style-type: none"> ▪ Good, professional staff ▪ Adequate resources ▪ Biosecurity ▪ Market intelligence ▪ Response to govt. initiatives ▪ Data management ▪ Communication to tropical fruit industry ▪ Training & leadership development 	<ul style="list-style-type: none"> ▪ Information to address risks ▪ Cross-sector communication plan ▪ Training program re: use of information 	<ul style="list-style-type: none"> ▪ Cost structure of competitors ▪ Alliance of competitors ▪ Facts not assumptions ▪ Own industry competitive position ▪ Data by sector and by competitive location ▪ Links to QLD/NT Govt. to gear up funding

5.2. Priority ranking by industry

The four priority areas identified by the aggregate industry sectors form the basis for the pathways to build capacity through the Industry Partnership.

Each area is relevant to all sectors, although as is clearly illustrated in the table, areas 1 (consumer and markets knowledge) and 2 (organisational capacity), are given highest aggregate priority.

It is also evident from the table and from workshop discussion that the content of the areas overlaps. For example some benchmarking aspects may be included as part of the assessment of markets, and organisational capacity will likely include organisational and industry information systems.

Importantly the industry participants agreed to maintain the four areas in isolation so that the relevant details of their content (presented above) would not be lost in the identification and development of project initiatives.

The project opportunities flowing from these areas are the initiatives that will form the proposed activities to be undertaken by the partnership over the coming year.

Presented below are the recommended Industry Partnership initiatives for the Tropical Fruits program.

Each area is supported by specific goals and strategies. The strategies plan to achieve defined milestones, outputs and / or outcomes by a specific date. Each goal will be will considered by industry and DAFF and, where agreed, developed into a project funding proposal to carry the partnership forward.

Strategic Priorities by Sector				
Industry	KPA 1 consumers & markets	KPA 2 organisational capacity	KPA 3 information systems	KPA 4 benchmarking
Melon	*	*		
Banana	*	*		
Avocado	* *			
Passionfruit	*		*	
Custard Apple	*	*		
Lychee	*		*	
Pineapple		*		*
RTEGA	*	*		
Mango	*		*	
Papaya	*		*	
Priority ranking	1	2	3	4

6. IPP Action Plan

The core working group agreed to goals for each KPA, and strategies to achieve these goals. The following summary table details the projects recommended by Ridge Partners to achieve the goals under each KPA. Estimates of costings and working times are also detailed within the table.

Note: in the following tables Black shading indicates working time and outputs, grey shading indicates continuing outcomes.

TROPICAL FRUITS INDUSTRY PARTNERSHIP PROJECT SUMMARY		Timing month ending										
		Nov-2004	Dec-2004	Jan-2005	Feb-2005	Mar-2005	Apr-2005	May-2005	Jun-2005	Jul-2005	Aug-2005	
Total external costs by 30 June 2005												
KPA 1. Market Intelligence & Consumer Trend												
Project 1A. Australian Consumer Market												
Project 1B. Export Consumer Markets												
Project 1C. Tropical Fruits Marketing Plan												
Project 1D. Initial Marketing Program Rollout												
Indicative Total												
KPA 2. Organisational Capacity												
Project 2A. Recruit Coordinator												
Project 2B. Strategic Framework for Tropical Fruit Industry Capacity Enhancement												
Project 2C. Leadership Development												
Project 2D. Enterprise Labour Access												
Project 2E. IPP Review Seminar												
Indicative Total												
KPA 3. Industry Information and Networks												
Project 3A. Information Tools												
Project 3B. Communication Tools												
Indicative Total												
KPA 4. International Benchmarking and Competitiveness												
Project 4A. Establish International Benchmarks												
Indicative Total												
Total Partnership Budget												

7. Milestones and responsibilities

7.1. Tropical Fruit Taskforce

Industry will drive the program through a taskforce. This task force will consist of one member from each industry organisation. These members are:

- Tibby Dixon – Australian Lychee Growers Association;
- Antony Allen – Avocados Australia;
- Vicki Kippin-O'Connor – Australian Banana Growers Council;
- Keith Paxton – Australian Passionfruit Industry Association (APIA);
- Patti Stacey – Australian Custard Apple Growers Association;
- Tibby Dixon – Australian Lychee Growers Association (also represents longan growers);
- Gavin Scurr – Pineapple Special Interest Group represented by Growcom;
- Allan Zappala – RTEGA;
- Trevor Dunmall – Australian Mango Industry Association;
- Naomi King – Australian Papaya Industry Association;
- Emily Martin – Australian Melon Association Inc; and
- Tracey Leo – Northern Territory Horticulture Association.

7.2. Core Working Group

From the taskforce a core group of five will be drawn to develop IPP strategies and tactics, and construct project proposals to deliver to DAFF. However, the larger task force will still be responsible for signing off on all proposals and projects.

The core group will consist of:

- Tracey Leo – NT Horticulture (representing emerging industries only);
- Antony Allen – Avocado Industry;
- Trevor Dunmall – Mango Industry (also Chair);
- Naomi King – Papaya Industry; and
- Allan Zappala – RTEGA.

Project observers with expertise in horticulture will also be invited to give advice to the Taskforce throughout the course of the IPP. These observers are:

- John Tyas – Horticulture Australia; and
- Max Burke – RIRDC.

7.3. Milestones

As detailed within the action plan, milestones have been established for each KPA and respective goals, strategies and actions. Some preliminary milestones must be achieved before the IPP projects can be initiated.

The first step in the process is to secure funding for IPP activities from DAFF. This proposal, constructed by the Core Working Group and signed off by the Taskforce, will be submitted to DAFF by 18 October, 2004. Following approval for the projects by DAFF, project briefs and requests for tender will be drawn up by the Core Working Group. This will be completed two weeks from the date of approval, and released to potential service providers.

Several milestones also relate to the employment of a Tropical Fruit Industry Coordinator – an agreed strategy to improve organisational capacity. The Core Working Group will be responsible for recruiting this person. This person will work with the Taskforce, and the Project Manager to drive the IPP projects.

The milestones also refer to a Tropical Fruit IPP Convention. This convention will allow the Taskforce and other stakeholders to evaluate the progress of the IPP. Any project results will also be showcased at the convention, and this will be the platform for extension of project outcomes to industry.

8. Recommendations

8.1. Recommendations

Ridge Partners, as the developer of the Pathways Report and facilitator of the Tropical Fruit IPP Workshop, recommends that the KPAs and associated goals and strategies agreed by industry (detailed above) be accepted by DAFF for the Tropical Fruits Industry Partnership Program.

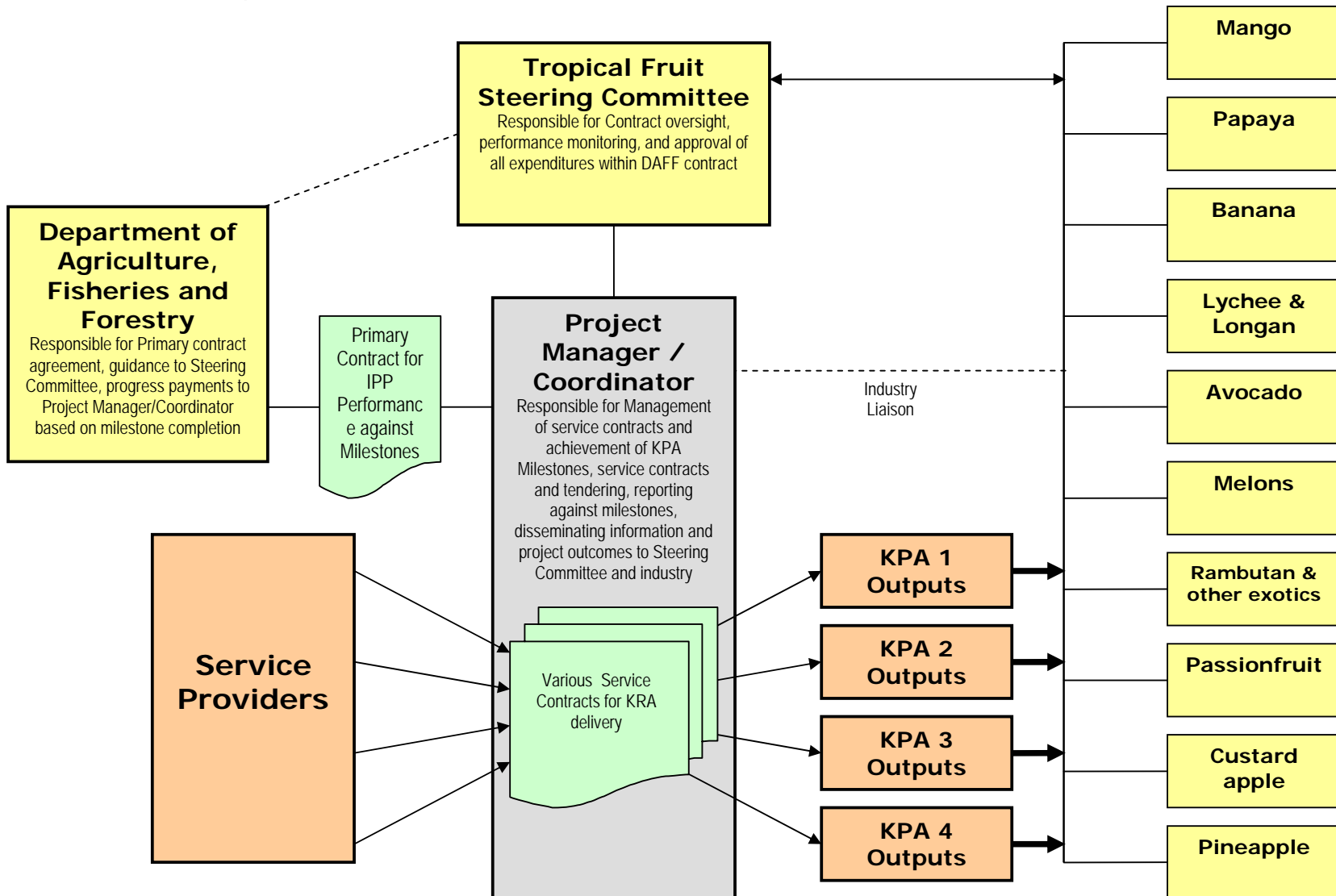
These chosen pathways for the IPP were developed by industry leaders across all sectors, based on a shared desired and vision to build the knowledge capacity of their industry. It is the opinion of Ridge Partners that the chosen KPAs are areas in which all sectors within industry stand to greatly benefit from increased focus and resources.

While the initial implementation timeframe for some goals and strategies are tight, we believe the agreed KPAs are appropriate and realistic outputs for this IPP. Achievement of the milestones is achievable if industry works together for shared outcomes, and is efficient in allocating resources and appointing project administrators.

It is the recommendation of Ridge Partners that an independent project manager be involved in the process to ensure that milestones are achieved, and that the appointed Tropical Fruit Industry Coordinator is afforded appropriate access to industry resources. The proposed structure for the IPP is illustrated on the following page.

If these recommendations are accepted by industry and DAFF, formal funding proposals will be developed by industry with Ridge Partners support.

8.2. Structure for Tropical Fruit IPP



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Strategic plans

Australian Avocado Growers' Strategic Plan 2000-2005

Australian Banana Industry Strategic Plan (2002-2005)

Australian Custard Apple Growers Association Inc. Strategic Plan 2001

Australian Durian Industry Strategic Plan 2001-2006

Australian Longan Industry Strategic Plan 1997

Australian Mangosteen Industry Strategic Plan November 1997

Australian Passionfruit Industry Strategic Plan 2002 – 2005

Australian Pineapple Industry Strategic Plan 2002-2005

Australian Rambutan Industry Strategic Plan February 2003

Mango Industry Strategic Plan: Strategic Investment 2004-2009

Rambutan and Tropical Exotic Growers Association Work Plan October 2002 – October 2003

2003-2008 Strategic Plan for the Australian Lychee Industry

2003-2008 Strategic Plan for the Australian Melon Industry

2003-2008 Strategic Plan for the Australian Papaya Industry