

The value and use of Western Australia's native forests now and into the future

Survey summary report

August, 2021

Report prepared by:

The Western Australian Biodiversity Science Institute

Disclaimer

This report is intended for the Hon Amber-Jade Sanderson MLA, Minister for Environment and Climate Action and advisors. It is not for public release.

The Western Australian Biodiversity Science Institute

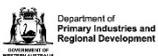
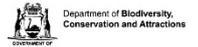
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Executive Summary

Western Australia's native forests in the south-west of the state are an important and valuable asset to the Western Australian community. These forests provide Western Australians with diverse opportunities and values including recreation, conservation, and economic.

Under the *Conservation and Land Management Act (1984)*, a new Forest Management Plan (FMP) is required every 10 years to guide the management of the State's South-West native forests. The current FMP is due to expire in 2023. The Hon Amber-Jade Sanderson MLA, Minister for Environment and Climate Action, sought the views of Western Australians on the value and use of the state's south-west native forests now and into the future before the development of the next FMP and commissioned the Western Australian Biodiversity Science Institute (WABSI), an independent research organisation to undertake this consultation. Accordingly, an online survey was developed and administered by WABSI to inform the Minister about the range of views in the community on south-west native forests. The survey was active between 22nd June and 1st August 2021.

This survey consisted of five sections where respondents could provide their views on the value, management, and future of the south-west native forests. Along with demographic information, respondent's use of the south-west native forests was also recorded with an opportunity for respondents to attach any supporting documentation or add comments that they would like to share on the topic. 16,944 responses were received.

This consultation process has attempted to encourage responses from all Western Australians with diverse backgrounds, ages, interests, and uses of the state's South-West native forests. However, it does not claim to be representative of any specific demographic. The report reflects the viewpoints of those who responded to the survey.

Key Findings

Several key findings emerged through this consultation process. They include the following: a majority of the respondents (99%) use the forest for personal purposes or a combination of business and personal purposes. Only 1% use the forests purely for business purposes.

Biological diversity was the most highly valued aspect of WA's south-west native forests followed by habitat provision for threatened species and communities and a provision of ecosystem services. Furthermore, old growth forest areas, followed by threatened species and communities, and forest connectivity were the most important aspects of WA's south-west native forests to a majority of the respondents.

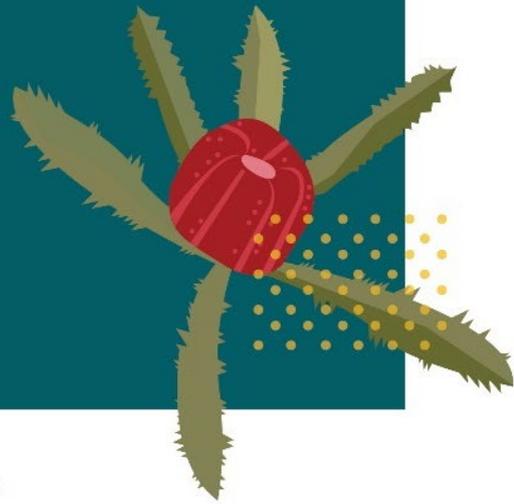
Having access to Western Australian native forests was important to 91% of respondents, while 98% felt that having native forests near Perth and regional towns adds to quality of life. When asked about current levels of forest protection, 87% felt that more areas of native forests should be protected, 74% felt that fewer areas of native forest should be available for timber harvesting with 83% disagreeing or strongly disagreeing that harvesting of native forests should continue at current levels.

Almost 75% of the respondents felt that all current management practices and industries operating in the south-west native forests would not be appropriate under an altered climate. Mining, native timber harvesting, and fire management were the top three practices that were deemed necessary

to change. Tourism, recreation (including hiking, camping, and birdwatching among others) and bee keeping (including honey production) were deemed the most sustainable activities.

Results of this survey show that people care about protecting WA's South-West native forests and feel that they need to be sustainably managed to ensure the conservation of biodiversity provision of ecosystem services. Respondents also felt that native forests were important for their role in carbon capture and storage, which would facilitate resilience against climate change.

The value and use of Western Australia's native forests now and into the future



Preliminary public consultation for the 2024–2033 Forest Management Plan:



- 17,000 responses received over a 5.5 weeks consultation period

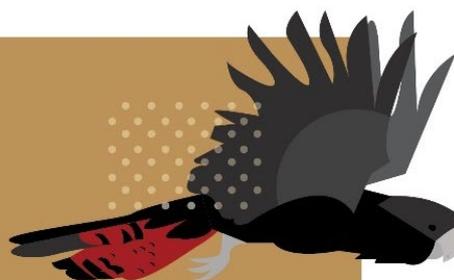


- Responses received from all Commonwealth Electoral Districts across Western Australia



- 1,335 respondents covering 9 types of industries used the forests for business purposes

Overall story



Take home messages after an analysis of the final results:

1.



- Most valued attributes:
 1. Old growth forest areas
 2. Threatened species and communities
 3. Biodiversity

2.



- Top management priorities:
 1. Mining
 2. Native timber harvesting
 3. Pest animals

3.



- Most sustainable activities:
Recreation, tourism and bee keeping
- Most unsustainable activities:
Mining, native timber harvesting and firewood collection

4.



- 89% felt that fewer areas of native forest be made available for timber harvesting and 54% felt that timber harvesting was never appropriate

Survey results summary



Most valued elements:

1.



- Biological diversity

2.



- Habitat for threatened species and communities

3.



- Ecosystem services

Top recreational activities:

1.



- Bush walking / hiking

2.



- Nature appreciation

3.



- Exercise

Most important attributes:

1.



- Old growth forest areas

2.



- Threatened species and communities

3.



- Biodiversity

Top management priorities:

1.



- Mining (including exploration)

2.



- Native timber harvesting

3.



- Pest animals (feral cats, foxes, pigs)

Background and Introduction

Western Australia's national parks, conservation parks, nature reserves, State forests and timber reserves are vested in the Conservation and Parks Commission of Western Australia (WA) (hereafter, Conservation and Parks Commission) and are managed by the Department of Biodiversity, Conservation and Attractions (DBCA) on behalf of the Commission for Western Australians.

The native forests in the south-west of the state are a valuable asset to the Western Australian community providing them with diverse opportunities including recreational (bush walking / hiking / camping / fishing / bird watching), economic (apiary / timber products and harvesting / tourism), cultural and heritage (both Aboriginal and non-Aboriginal) and scientific research. These forests include all areas on public land covered by the Regional Forest Agreement (Figure 1). The judicious management of these assets for multiple values and uses is necessary for their enjoyment by, and benefit to, future generations.

Native forests situated on public lands are subject to the Forest Management Plan (FMP). Under the *Conservation and Land Management Act 1984*, a new management plan for the State's south-west native forests is required every 10 years. The current FMP for the south-west native forests was implemented by the previous Liberal National Government and is due to expire in 2023.

As part of the McGowan Government's commitment to consultation on the future management of this highly valued natural resource, the Hon Amber-Jade Sanderson MLA, Minister for Environment; Climate Action; Commerce, sought the views of Western Australian community on their values and uses of the south-west native forests now and into the future. Accordingly, the Western Australian Biodiversity Science Institute (WABSI), an independent research organisation, was commissioned by the Minister Sanderson to undertake a community survey and inform the government about the range of views in the community on the south-west native forests.

The purpose of the community survey was to provide an inclusive engagement process through which the diverse community values and uses of Western Australia's south-west native forests are identified, understood and used to shape their management. The community survey was an early opportunity for Western Australians to provide their views on the south-west native forests ahead of the formal process for the development of the 2024–2033 FMP. It can be considered as preliminary consultation additional to separate formal consultations to develop the 2024–2033 FMP, which will be taking place over the next 12 months. The formal consultations will examine aspects of forest management to a much fuller extent and will include vital targeted discussions and engagement with traditional owners, industries, the conservation sector and other stakeholders separately to the community survey.

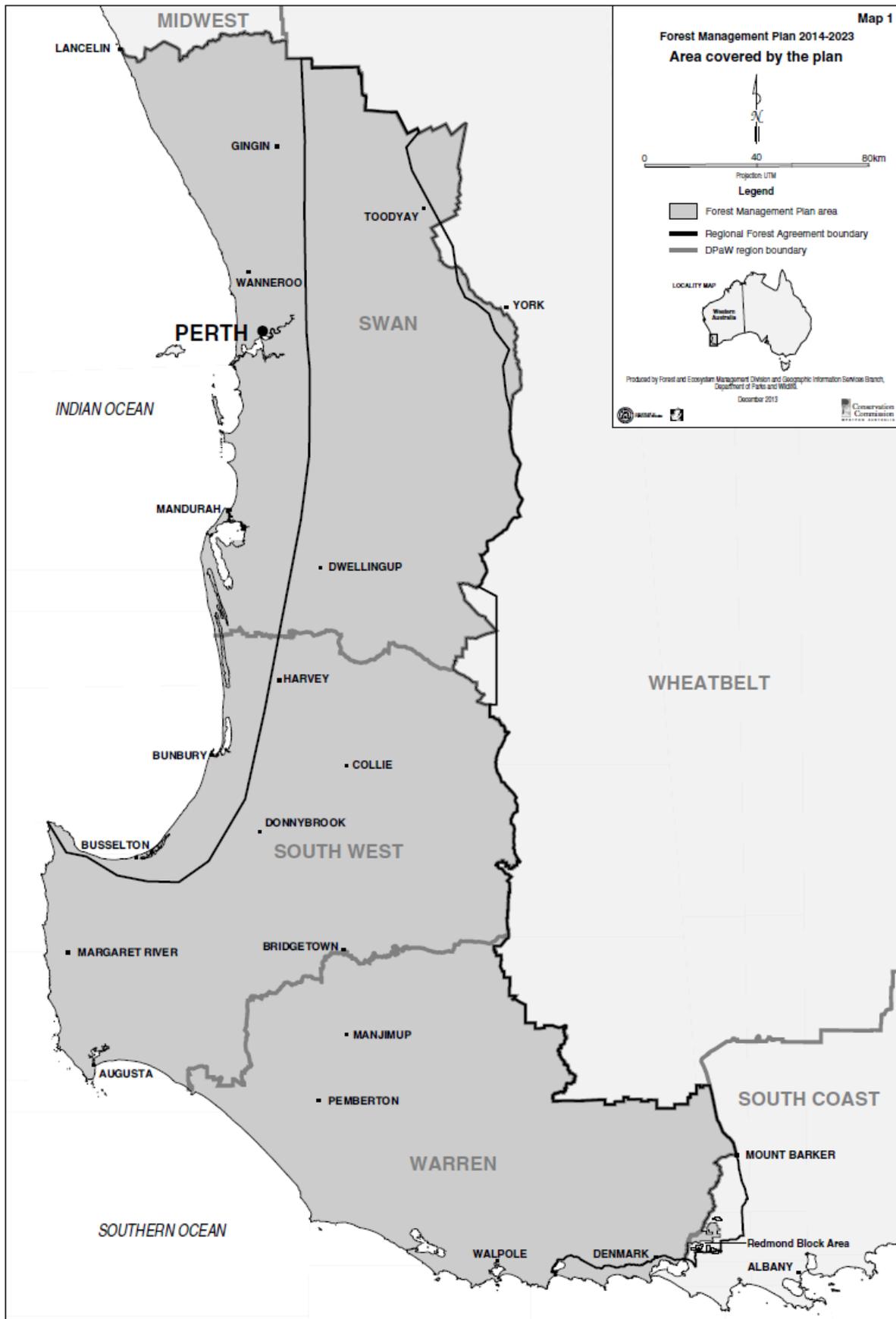


Figure 1: Area covered by the Forest Management Plan (2014–2023) for the South-West of Western Australia

Methodology

Community views on the management of the state's south-west native forests were obtained through an online survey developed by the Western Australian Biodiversity Science Institute (WABSI). Native forests in the south-west of the state on public lands under the FMP including forests covered by the Regional Forest Agreement (Figure 1) were the subject of this survey. The scope of this survey did not include areas of public land planted with exotic species (such as pine plantations) or areas of native forests on private (freehold) land.

The survey consisted of five sections. The first section was about a respondent's use of Western Australia's south-west native forests. The next three sections were about the value, management and future of the south-west native forests. The last section collected broad demographic information. There was also an opportunity at the end of the survey for respondents to attach any supporting documentation or add comments that they would like to share on the topic.

The online survey was launched on 22 June 2021 by Minister Sanderson. Responses were collected until 1 August 2021. The survey was administered through an online community engagement platform, Social Pinpoint (Newcastle, NSW). 16,944 responses were received. Each submission had a unique fingerprint ensuring only one response per person. The survey platform prevented multiple submissions. 96% of all respondents were from Western Australia (either the Perth Metropolitan Area or Regional Western Australia). Less than 4% of responses did not provide a postcode or were from interstate or overseas.

Data was analysed using a statistics and data science software, Stata® (StataCorp LLC, Texas, USA). Data has been displayed visually where possible.

To minimise bias in the results, the online survey was open to all western Australians and advertised through a variety of channels. The survey was announced via a media release from Minister Sanderson, and received follow-up media through ABC South-west radio, online (e.g. WAtoday, Busselton Mail) and print (e.g. The West Australian) news, local groups (e.g. WA Forest Alliance, Bibbulmun track), and social media (e.g. Facebook, Twitter).

It is important to note that the results presented in this report only reflects the views of those who participated in the online community survey. Nonetheless, our survey has a high statistical power — the number of responses exceeds the recommended sample size required to obtain a confidence of 99% with a 1% margin of error for a population the size of Western Australia i.e., for a population of 2.7 million people, 16,486 survey responses are required to ensure a 99% confidence in the results. We obtained 16,944 responses and thus, can be confident about our results. The data analysis software used ensured that the data was objectively assessed and reported.

Survey Results

Interaction with Western Australia's south-west native forests

In response to the first question “*How do you typically interact with Western Australian south-west native forests?*” the majority of respondents (92%) selected interaction for personal purposes (including recreation, nature appreciation etc.). 7% interacted with the forests for both business or employment and personal purposes and just 1% interacted with the forests only for business or employment purposes (Figure 2).

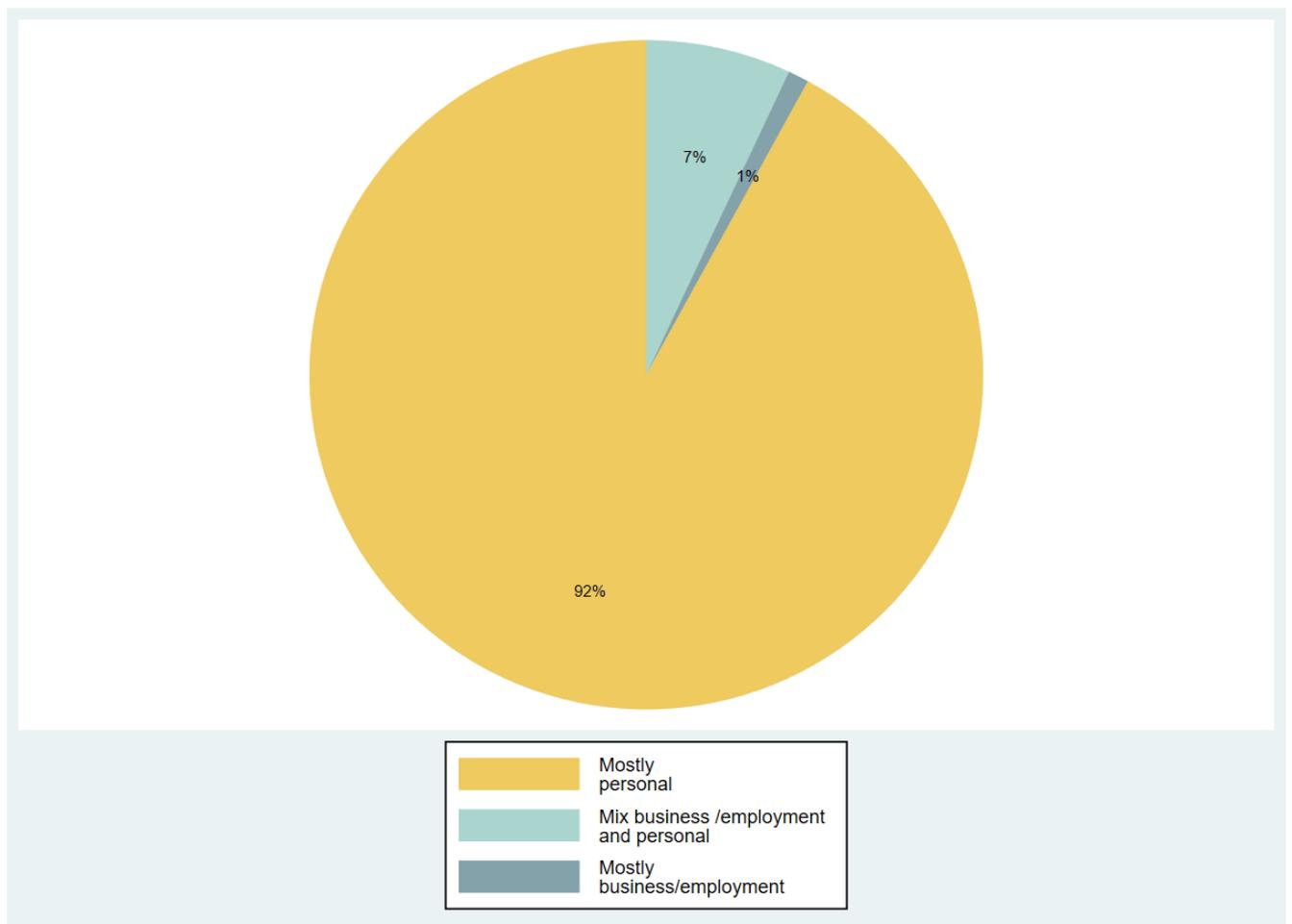


Figure 2: Interaction with Western Australia's south-west native forests.

Personal interactions with Western Australia's south-west native forests

Bushwalking (92%) followed by nature appreciation (88%), exercise (68%), camping (68%), photography (54%), and birdwatching (51%) were the top recreational activities carried out in the south-west native forests. Sports such as mountain biking, trail biking, fishing, and water sports were carried out by 21%, 11%, 18%, and 17% of respondents. Cultural heritage and Aboriginal cultural heritage were selected by 29% and 25% of respondents, respectively, while scientific research was carried out by 8% of respondents. (Figure 3).

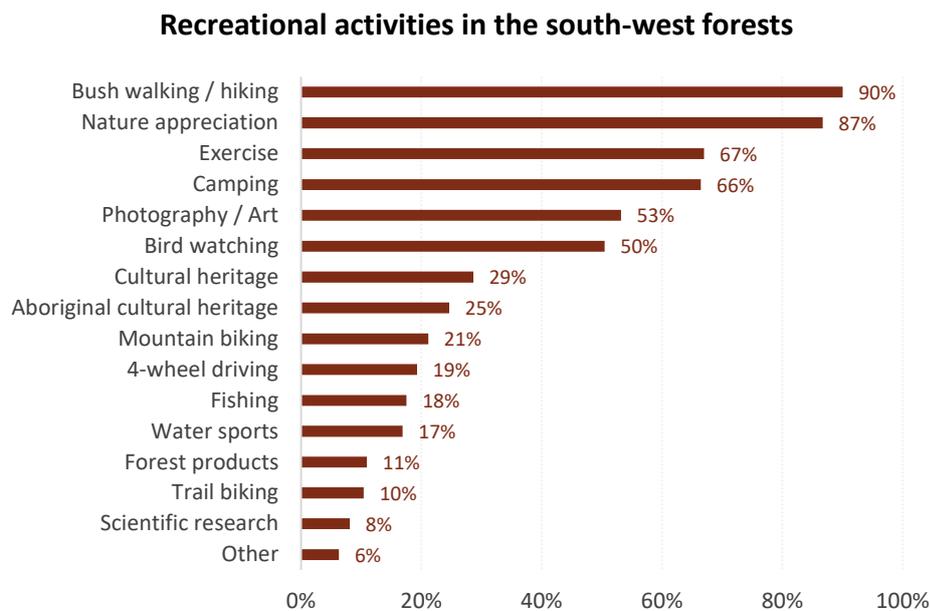
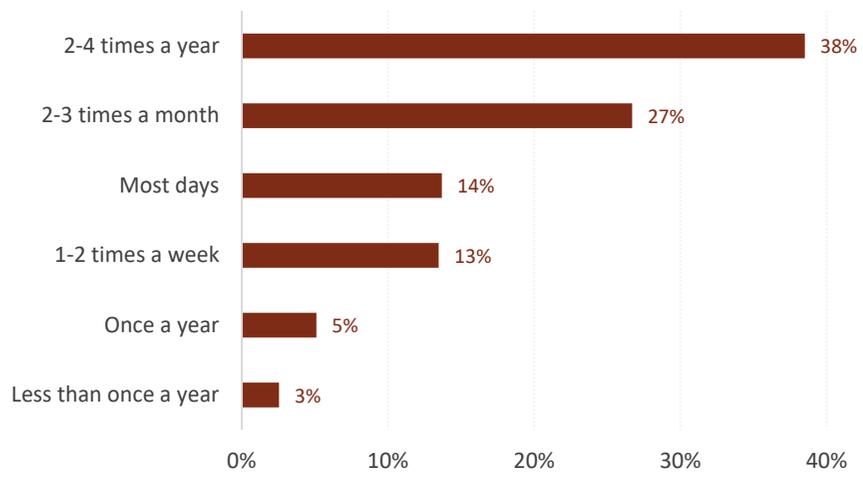


Figure 3: Recreational activities carried out in the south-west forests

Respondents interacted with the south-west native forests fairly frequently for personal activities. Most respondents (38%) interacted with the forests 2-4 times a year followed by interactions 2-3 times a month (27%). Just 5% of respondents interacted with the forests once a year and about 2% interacted with the forests less than once a year. (Figure 4a). Respondents had also been interacting for a long while with the south-west native forests. Nearly four-fifths of all respondents had been interacting with the south-west forests for over 10 years. Only around 1% of respondents had been interacting with the forests for under a year. (Figure 4b).

(a)



(b)

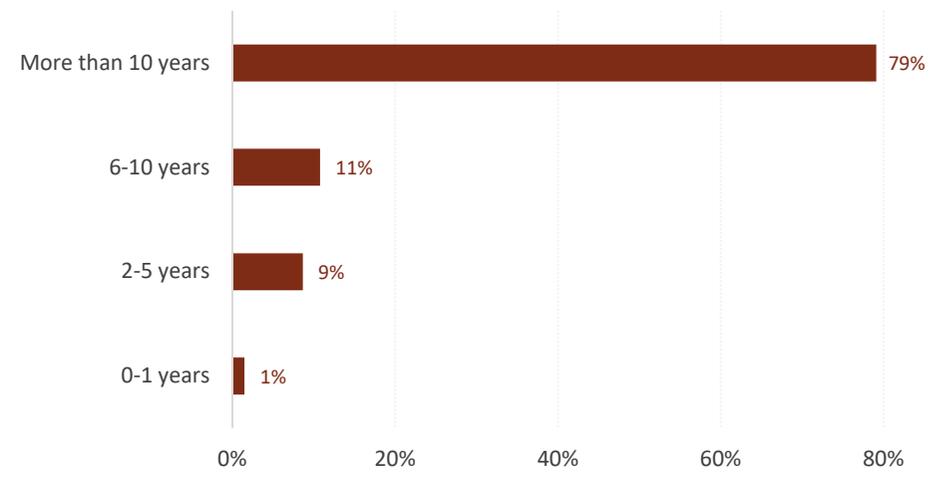


Figure 4(a) Interaction frequency and (b) duration of interaction with the south-west native forests for personal activities.

Business / employment in Western Australia's south-west native forests

The 1,335 respondents who indicated that their interaction with the south-west forests for either business or employment purposes or for both business or employment and personal purposes broadly belonged to nine industries of which native timber harvesting and associated businesses was the top industry (17%) followed by tourism (14%), education (12%), scientific research (10%), and apiary (8%) (Figure 5). Other industries included mining (including exploration) (4%), artisan timber products (3%), carbon storage (1%), and those dealing in other forest products (including firewood, and native seed and flower collection) (5%).

Main business types in the south-west forests

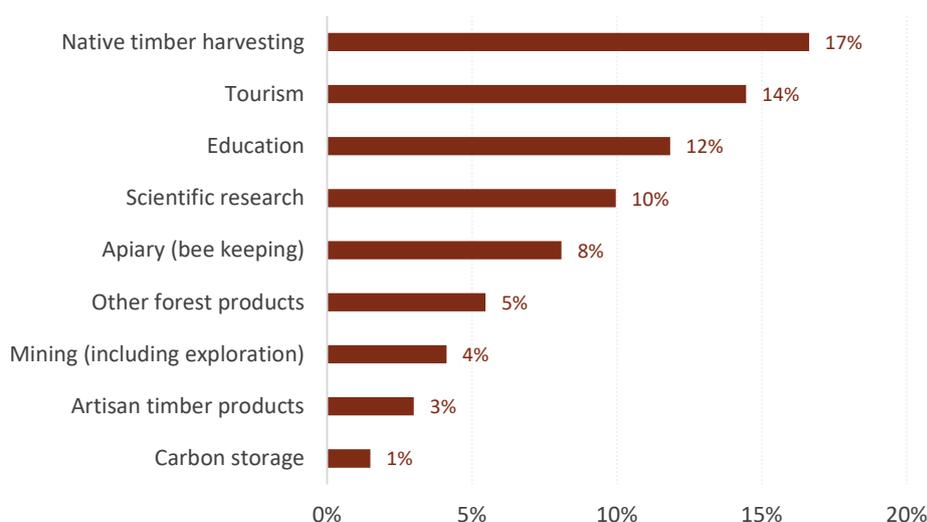
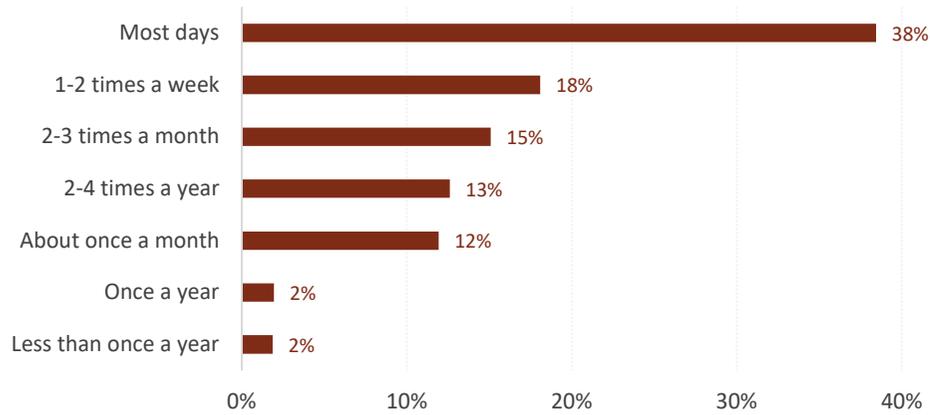


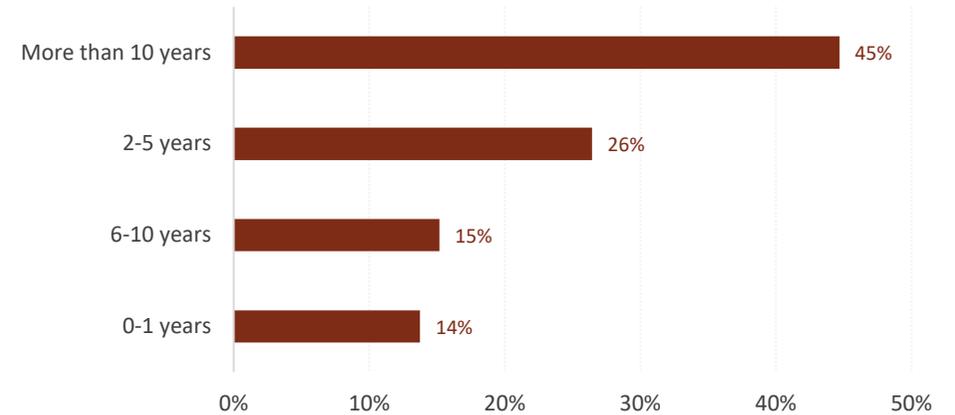
Figure 5: Main types of business or employment in Western Australia's south-west native forests

Close to 40% of businesses interacted with the south-west forests on most days with only 4% of businesses interacting with the forests once a year or less. (Figure 6a). Regarding the duration of this interaction, most businesses (45%) had been interacting with the south-west forests for 10 years and longer and only 14% for less than one year. (Figure 6b). The majority of the businesses were sole traders (27%), followed by small, micro, and medium businesses (18%, 18%, and 15%, respectively). Large businesses that had over 1,000 employees constituted only 7% of business respondents. (Figure 6c). Nearly a third of all respondents who interacted with the forests for business purposes did not know the annual revenue of the business. However, 15% of business respondents indicated an annual revenue between \$50,000 and \$250,000 followed by those with revenue between \$10,000 and \$50,000. Businesses with an annual revenue between \$2 –10 Million was 6%, while 4% indicated an annual revenue between \$1–2 Million (Figure 6d).

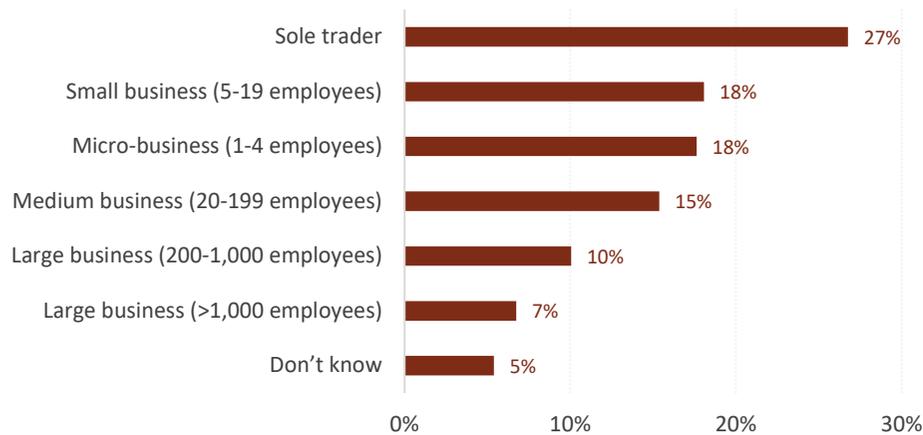
(a)



(b)



(c)



(d)

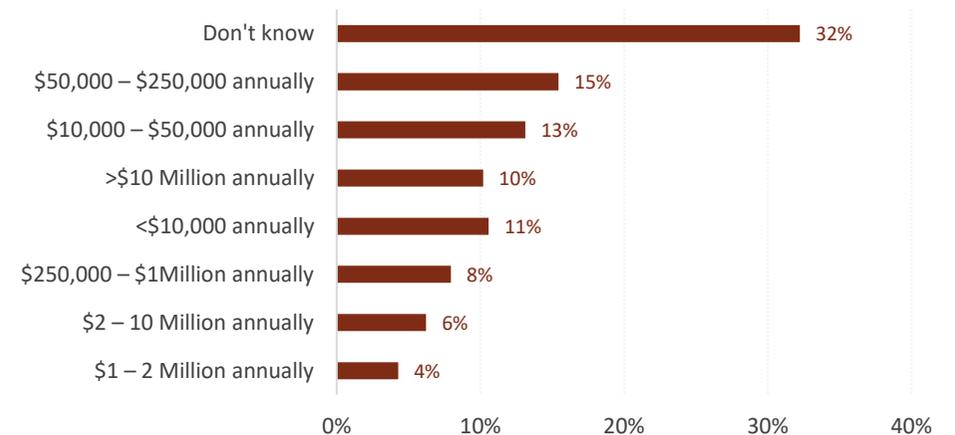


Figure 6: (a) interaction frequency of business or employment with the south-west native forests, (b) interaction duration of business /employment with south-west forests, (c) type of business, and (d) annual revenue of business.

Value and management of the south-west native forests

When asked “Which of the following do you value most about WA’s south-west native forests?” respondents valued Biological diversity (75%), habitat for threatened species and communities (65%) and ecosystem services (53%) most. Carbon storage (34%), mental health benefits (21%) and recreation (18%) were also important with amenity (3%) and commercial use (4%) least valued.

In response to the question, “Which of the following aspects of WA’s south-west native forests are most important to you?” the top 3 attributes selected by respondents were (1) old growth forest areas, (2) Threatened species and communities, and (3) Biodiversity chosen by 70%, 63%, and 51% of respondents, respectively (Figure 7). This was followed by forest connectivity (31%), carbon storage (21%), Aboriginal cultural heritage (21%), recreation (21%), and water resources (10%). Native timber production, non-Aboriginal cultural heritage, and other commercial uses (apart from native timber production) were least important and selected by less than 5% of respondents.

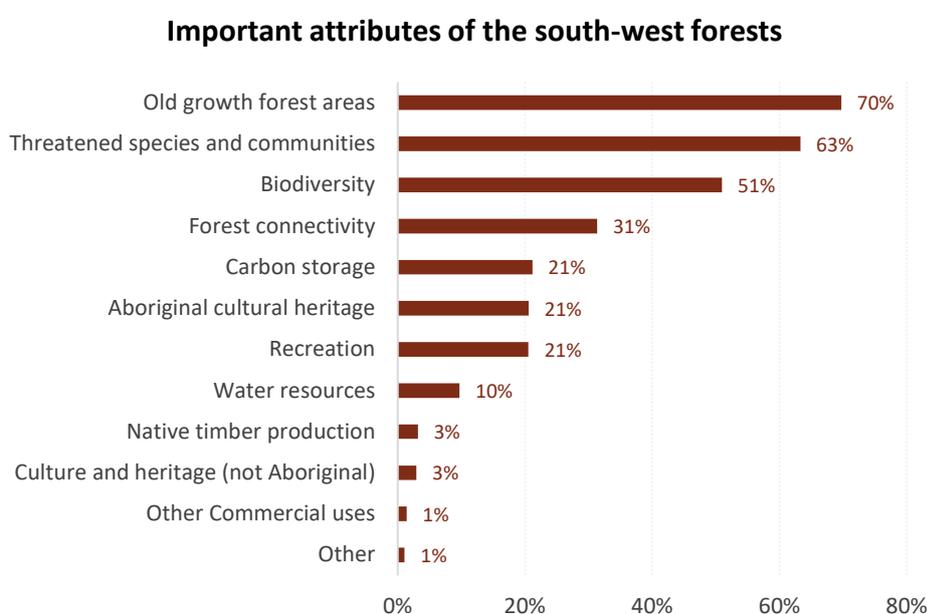


Figure 7: Most important attributes of the south-west native forests

In response to the question, “Which of the following are most important to manage in our south-west native forests?” the top three aspects to be managed were (1) Mining (including exploration), (2) native timber harvesting, and (3) Pest animals (feral cats, foxes, and pigs), chosen by 59%, 56%, and 31% of respondents, respectively. Other aspects deemed important to manage in the south-west native forests were (4) Habitat fragmentation, (5) Climate change, (6) Fire, (7) Disease (e.g., Phytophthora dieback), (and (8) General degradation selected by 24%, 24%, 19%, 19%, and 16% of respondents, respectively. Weeds, uncontrolled vehicle access, infrastructure and facility development, carbon storage, inappropriate recreational use, and unauthorised firewood collection were deemed necessary to manage by less than 10% of respondents (Figure 8).

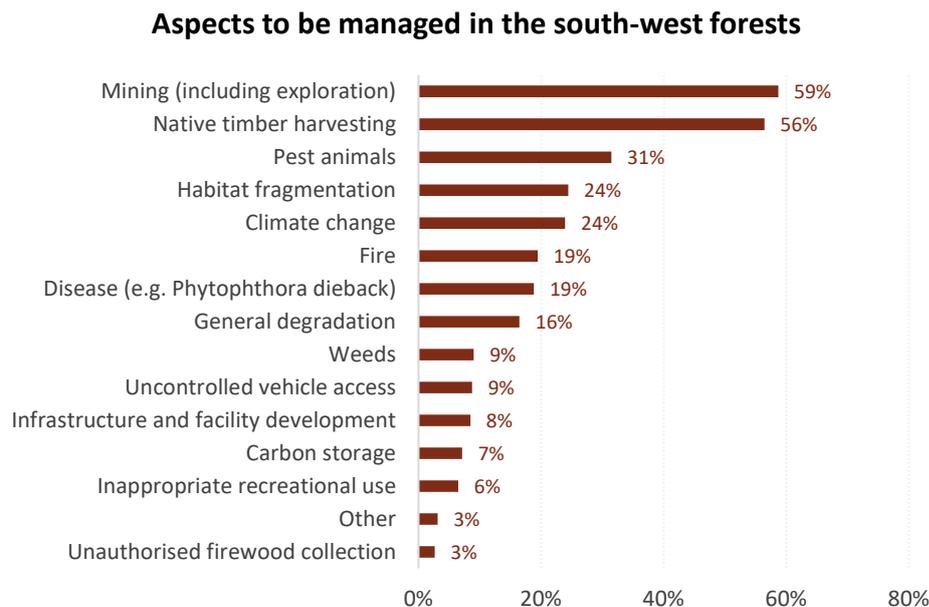


Figure 8: Important aspects to manage in the south-west native forests

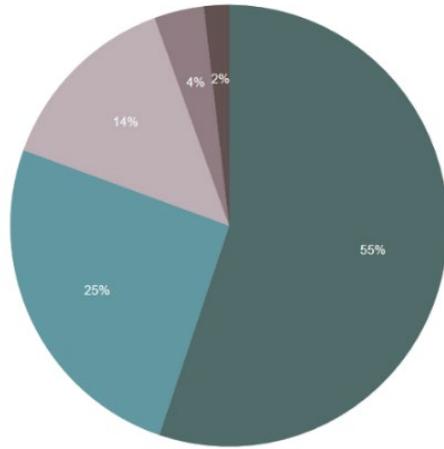
Management of the south-west native forests

The sustainability of various industries

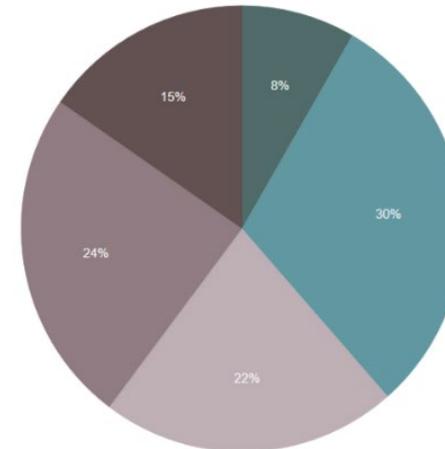
Respondents were asked to rate the sustainability of the following industries in Western Australia’s native forests—(1) Apiary (bee keeping), (2) Artisan timber products, (3) Carbon storage, (4) Firewood collection, (5) Mining, (6) Native seed and flower collection, (7) Native timber harvesting, and (8) Tourism. Rating was asked on a 5-point Likert scale with scale points — *Highly sustainable, Somewhat sustainable, Not sure, Somewhat unsustainable, and Very unsustainable*.

Recreation followed by Tourism, Apiary, and Carbon storage were deemed the top four most sustainable industries by 85%, 81%, 80% and 73% of respondents, respectively, whereas, mining (including exploration), native timber (e.g. jarrah, karri, marri or wandoo) harvesting, and firewood collection were deemed the top three most unsustainable industries by 91%, 82%, 51%, and 39% of respondents, respectively (Figure 9).

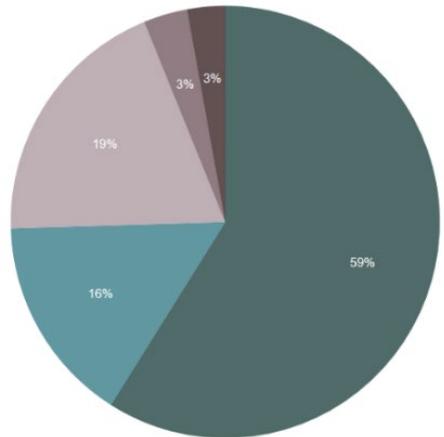
Apiary



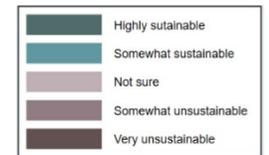
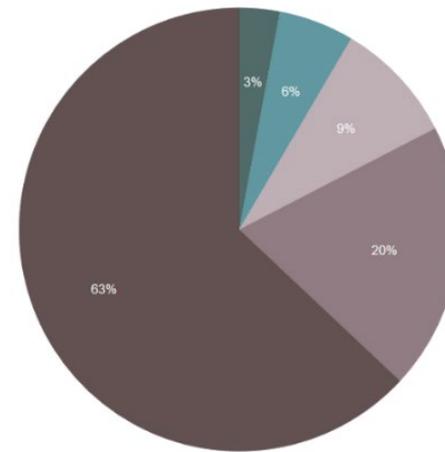
Artisan timber products



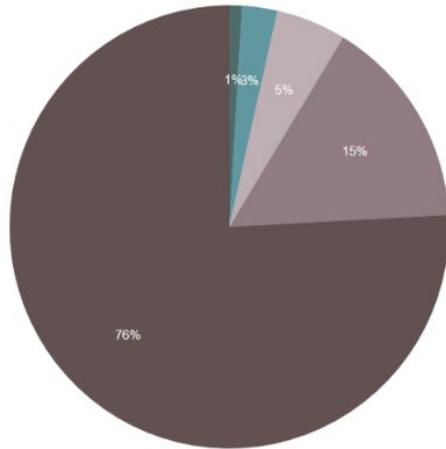
Carbon storage



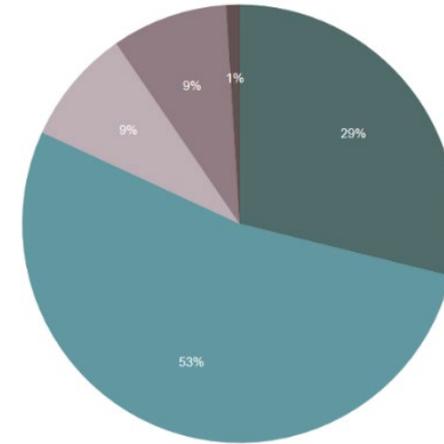
Native timber harvesting



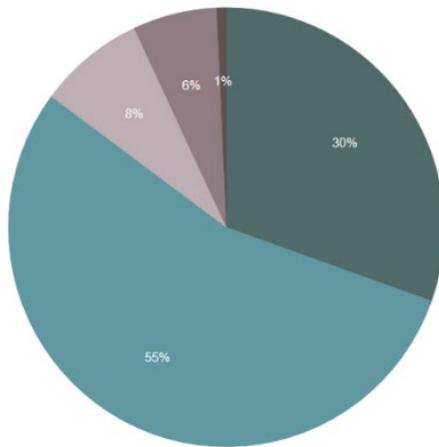
Mining



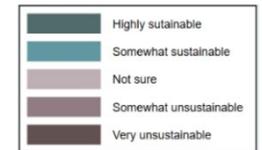
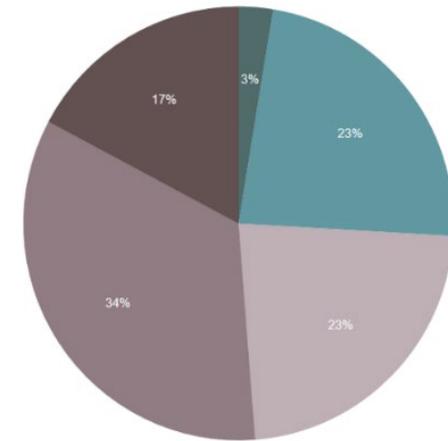
Tourism



Recreation



Firewood collection



Native seed and flower collection

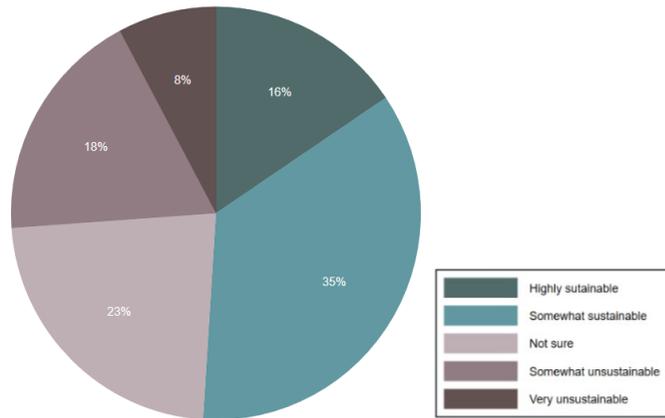
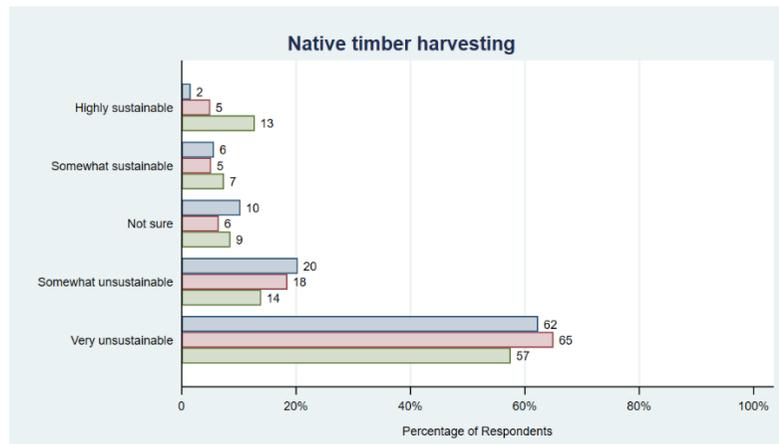
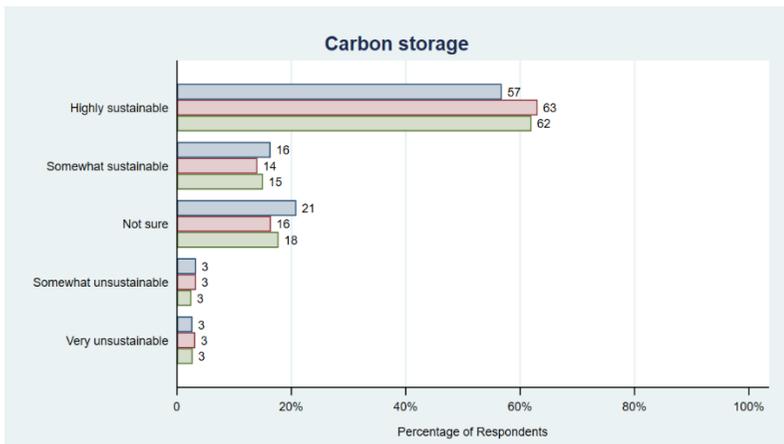
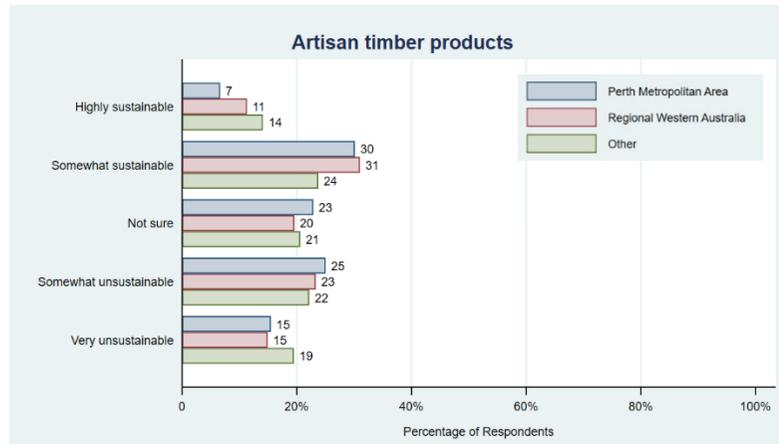
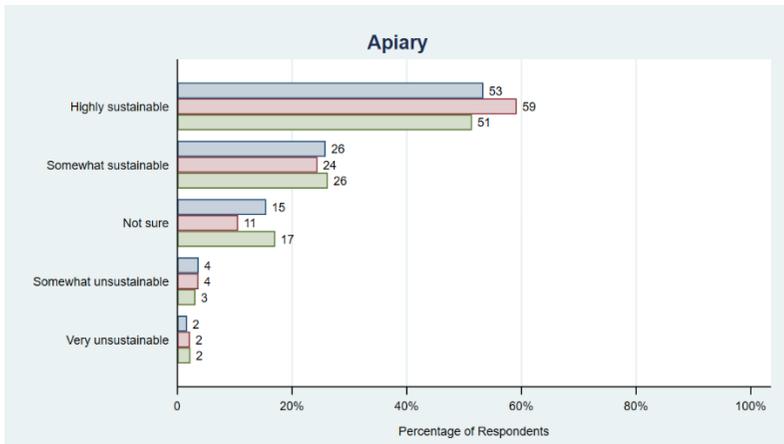
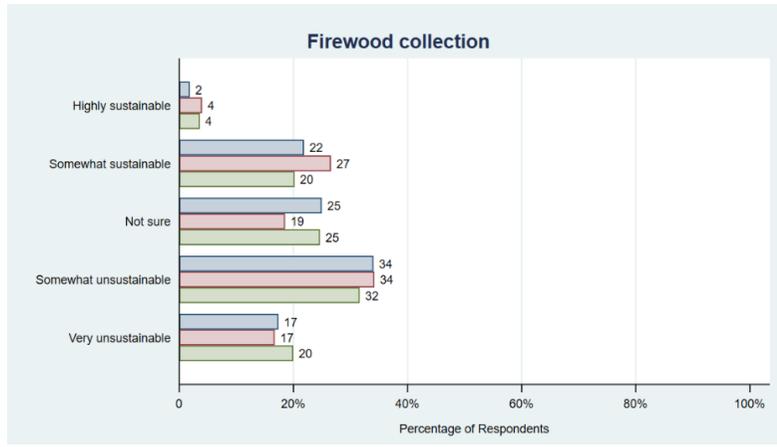
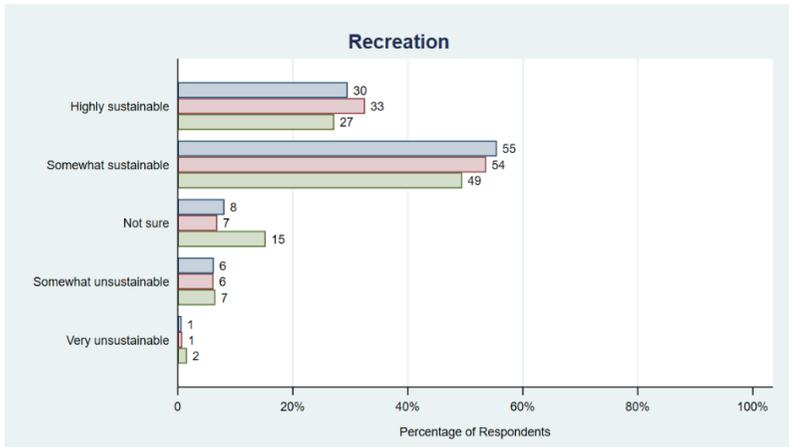
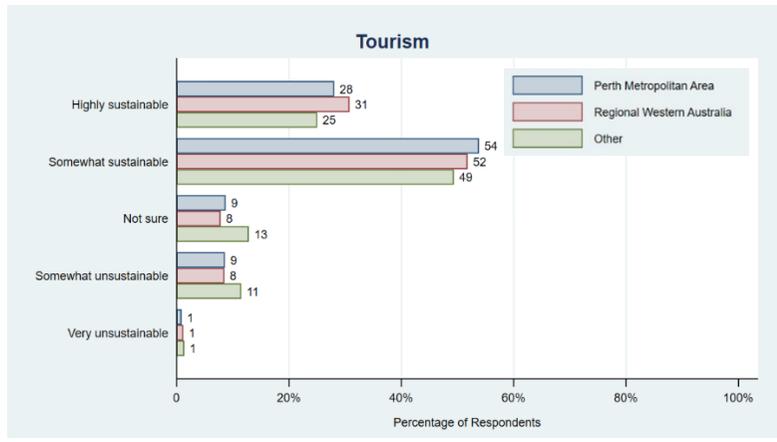
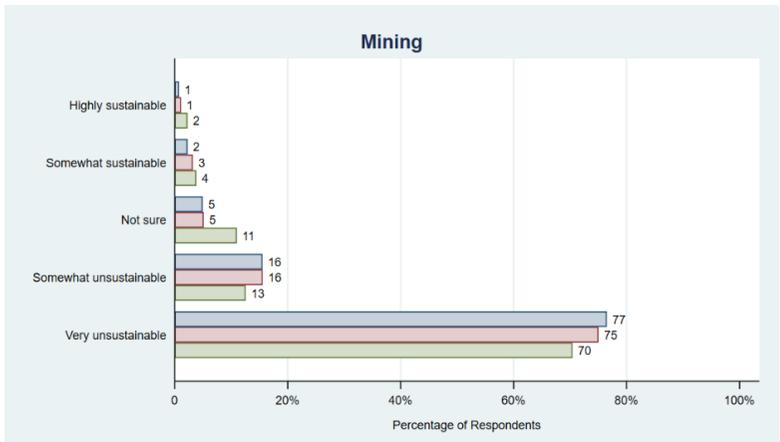


Figure 9: The sustainability of various industries in the native forests — Apiary, Artisan timber products, carbon storage, Native timber harvesting, Mining, Tourism, Recreation, Firewood collection, and Native seed and flower collection.

The sustainability of various industries was also assessed based on the respondent's locality, considering responses from people located in metropolitan, regional and other areas (Figure 10) and whether they used the south-west native forests for work or only for personal purposes (recreation) (Figure 11).

Only minor differences were observed between metropolitan and regional responses and patterns were typically the same across each industry when assessed for sustainability. However, when data was examined based on how the respondents interact with the forests (business or recreation), there were differences observed in how sustainable some of the industries are perceived. Generally, respondents using the forests for business viewed the nominated industries as more sustainable than those people who only interact with forests for recreation. For example, 23% of people interacting with the forests for business view their use for Artisan timber products as highly sustainable compared to just 7% who interact with the forests for recreation. Similarly, 25% of those using the forests for business feel that native timber harvesting is highly or somewhat sustainable, where 7% of those using the forests for recreation feel this. For other industries, such as apiary or carbon storage, the two groups observed the sustainability of the industry similarly.





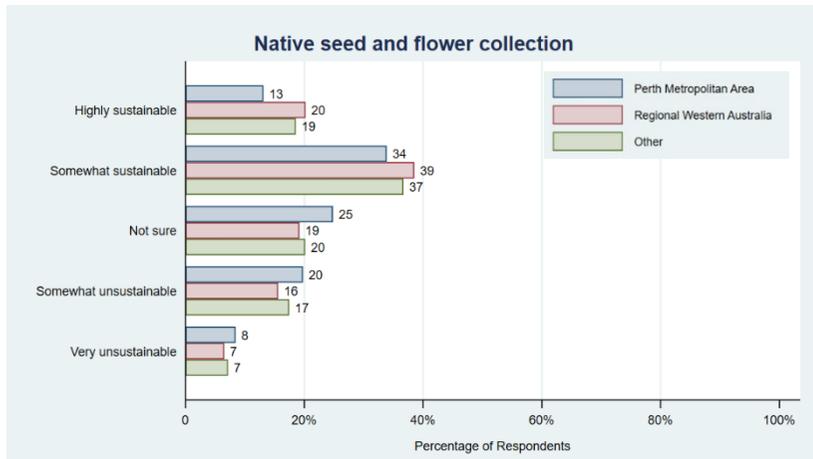
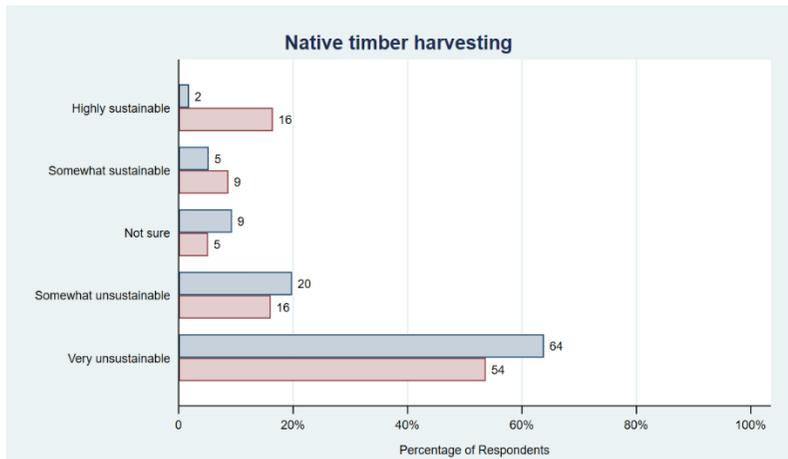
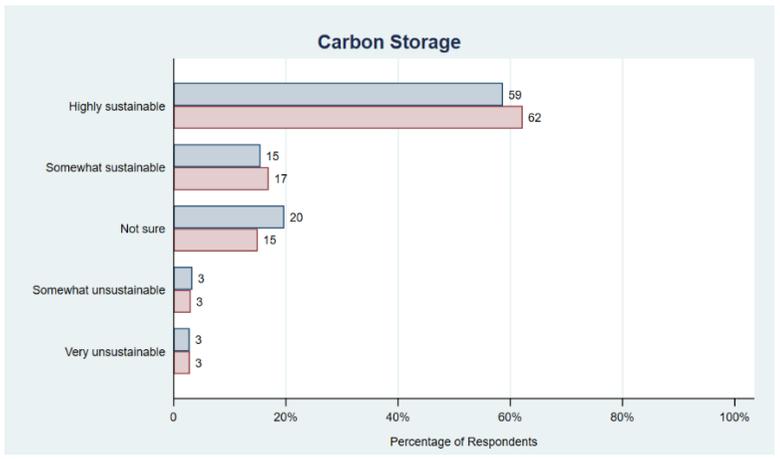
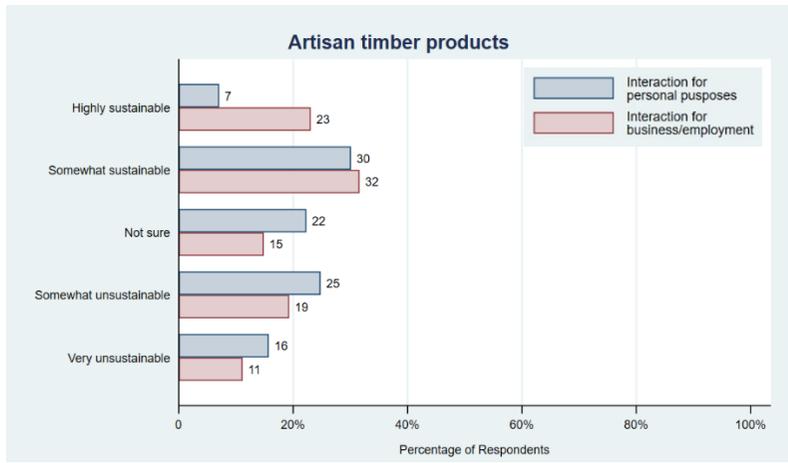
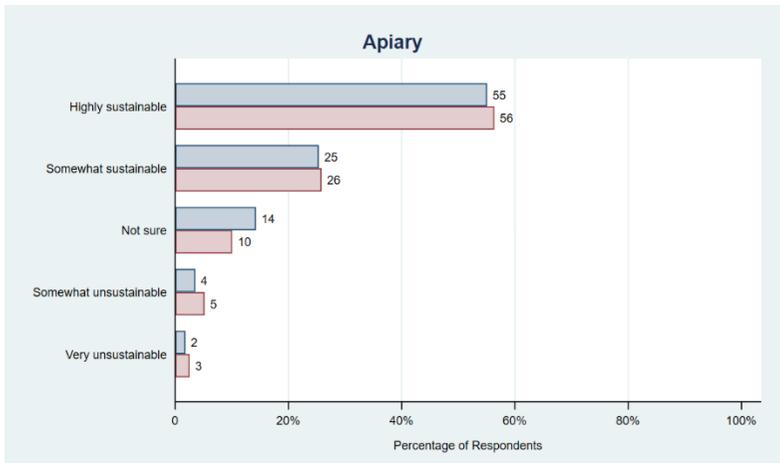
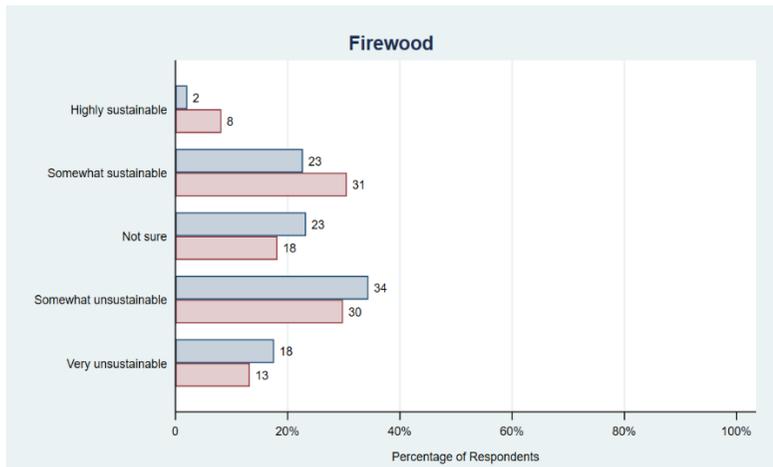
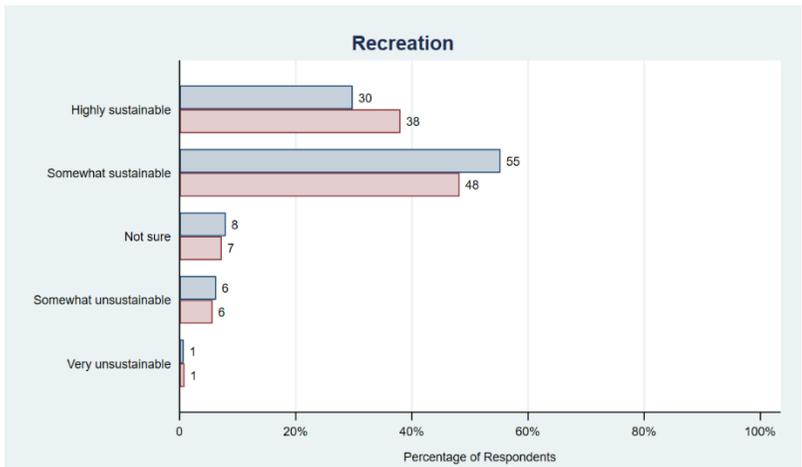
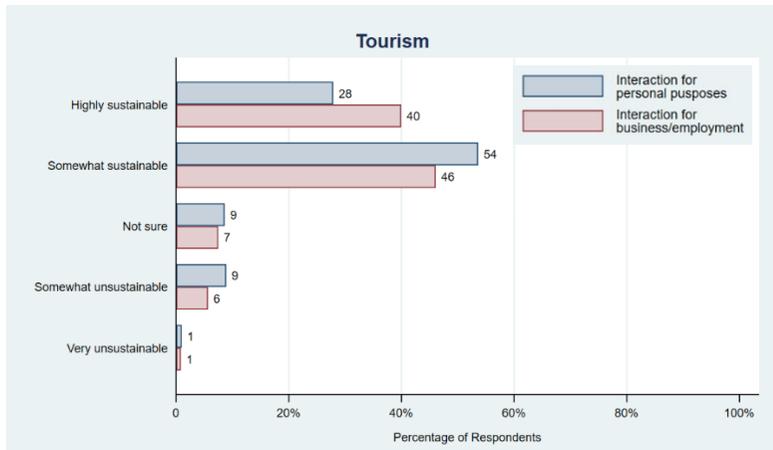
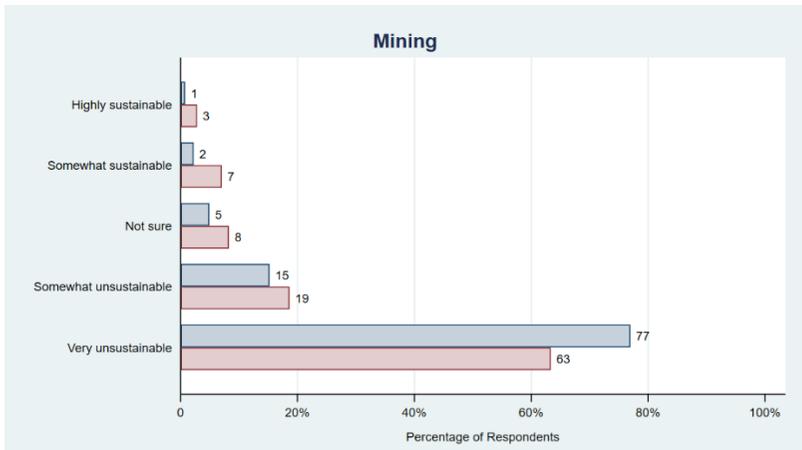


Figure 10: The sustainability of various industries in the native forests — Apiary, Artisan timber products, Carbon storage, Native timber harvesting, Mining, Tourism, Recreation, Firewood collection, and Native seed and flower collection assessed by respondents’ region.





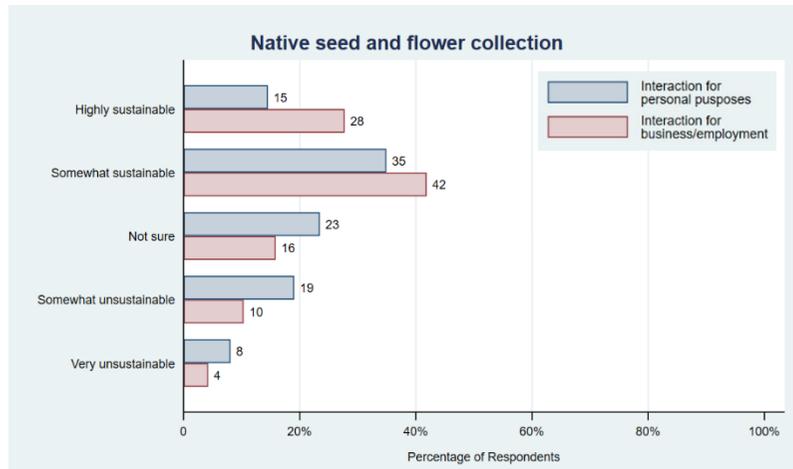


Figure 11: The sustainability of various industries in the native south-west forests — Apiary, Artisan timber products, Carbon storage, Native timber harvesting, Mining, Tourism, Recreation, Firewood collection, and Native seed and flower collection assessed by respondents' type of interaction with the forest (personal versus business / employment).

Native timber harvesting in the south-west forests

In response to the question “In State forests and timber reserves, currently around 1 % of public native forests are made available each year for the timber harvesting industry that supports jobs in Western Australia. When is this practice appropriate?”, over half the respondents (54%) said that this practice was never appropriate, while a third (32%) said that the practice was appropriate in some areas but not those with old growth forest. A quarter (26%) said that the practice was appropriate in some areas but not where there are significant cultural or heritage areas or trees. A quarter (24%) felt the practice to be appropriate in some areas but not riparian zones. Just about 2% of all respondents felt that the practice of timber harvesting on public native forests was appropriate in any forest area (Figure 12).

Respondents were also asked to describe their views on timber harvesting in public native forests. We present a snapshot of their range of views (Figure 12). Most comments on this topic felt that timber harvesting, particularly of old growth forests was unnecessary with plantations being preferred to ensure the supply of timber for industries that require them. Others felt that it would be appropriate in some areas but not ecologically sensitive areas or areas that served as critical habitat for threatened species and communities. Strict licensing and enforcement were requested to manage illegal clearing, logging, and firewood collection. Yet others felt that timber harvesting could be an option for certain industries such as artisanal timber products. A small fraction of respondents felt that native forests outside National Parks/Conservation Areas should be made open to sensible harvesting of high value timber (but not clear felling). Respondents also felt that protecting old growth forests could ensure resilience against climate change.

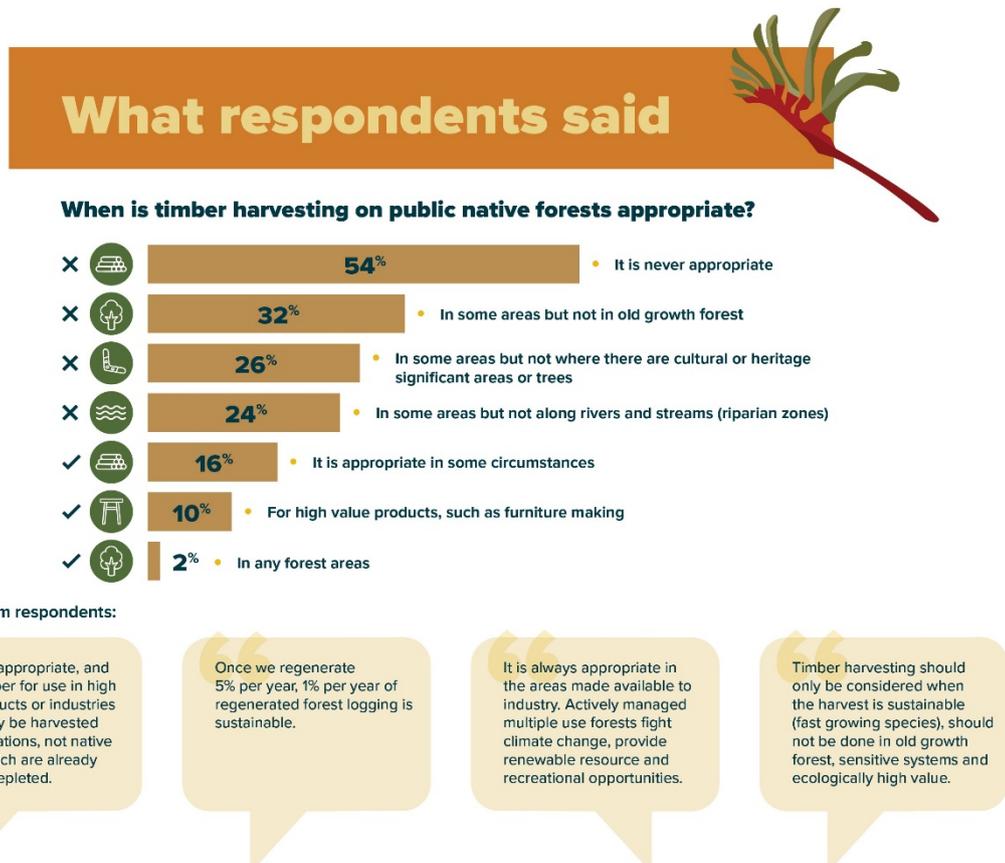


Figure 12: Responses to the question on the appropriateness of harvesting timber on timber harvesting on public native forests and some comments from respondents

The definition of old growth forests

In response to the question “Thinking about old growth forests specifically, if old growth is defined as “forest that is ecologically mature, where the effects of unnatural disturbance are now negligible”, do you think this definition is appropriate?” most respondents (39%) felt that that definition was not appropriate, while 27% felt that it was appropriate. 22% of respondents said that they do not know while 11% felt that the definition maybe appropriate. We calculated a Net Promoter Score for this definition to understand how satisfied respondents were with this definition. We got a score of -12 implying that respondents felt that the definition given was not appropriate and would need changes.

Most comments on the definition of old growth forests asked for clarification around the terms “ecologically mature” and also “negligible unnatural disturbance”. Many felt that negligible unnatural disturbance was too ambiguous a term and should either be avoided or properly defined.

Some comments on what respondents said to modify the definition of old growth forests.

“Old growth forest is defined as uncut forest or forest subject to minimal disturbance. Old growth functions such as nesting hollows, foraging habitat, under storey refugia and substantial levels of carbon storage, including long term maintenance of soil organic carbon stocks are evident. Previously uncut forests and negligibly disturbed two-tiered forests are considered old growth.”

““Ecologically mature” is a broad definition that lacks detail. Depending on the location and ecosystem, among other factors, old-growth forests vary in species composition, structure, and ecologically available resources, so each type of old-growth forest may have a unique definition and needs to be assessed accordingly.”

“Any section of Forrest that supports trees of over 100 years of age or trees mature enough to host endangered species, regardless of human impact in the surrounding area.”

“Forest that is ecologically mature, biologically diverse and an important natural resource that must be protected for future generations and as an important part of natural and historic land management processes.”

“An ecologically and culturally unique forest that would require substantial time and resources to replace.”

“Old growth forests are anything mature in age even if it has had disturbance.”

“The definition shouldn’t include “effects of unnatural disturbance are negligible” ... It should simply be stated as ecologically mature (potentially dating the years such as over x years old... some old growth forests do have unnatural disturbance (like paths etc).”

“I disagree with the part “effects of unnatural disturbance are now negligible”. Disturbance is everywhere and finding a place that hasn't been disturbed is impossible.”

“Forest that is ecologically mature and of significance.”

“The definition should relate to both trees and forests. Currently if there is a stump in a forest within a particular size of area it is not considered old growth forest. However, the old timers selectively logged and did it with hand tools and bullocks. So, there are stumps everywhere. Old growth TREES need to be protected in their own right.”

“Needs to include/re-classify regrowth forests.”

“The current definition is problematic due to the addition of stumps and dieback presence, even if the canopy is intact. Changing the definition and still saying forests can be logged in areas not 'old growth' by any definition is not good enough. For example, regenerating Karri forest say 20 years old should not be continued to be seen as a monoculture timber harvest forest. They must be regenerated into diverse forests.”

"Definition needs to acknowledge that most of our existing forests have previously been damaged but still retain significant ecological and climate mitigation/carbon storage and other values like tourism, recreation and honey. NO remaining forests ought to be cut. We ought to cut only plantations."

"'Negligible' and 'mature' are too open to interpretation. The definition needs to be watertight definition that includes all mature standing forests... Example, anything that hadn't been clear felled in the last 50 years."

"Old growth forests should be defined more broadly. There are no forests that have not been impacted on by human behaviour. 'Unnatural disturbance' is in undeniable presence in every ecosystem on earth. The old growth definition should be specifically about the trees that are present in the ecosystem. A realistic age given there is so little left of the original forests due to manmade changes to the environment. A modern definition would redefine old growth to reflect most if not all of our forests are compromised but that does not mean they should not be preserved."

"Forest that is ecologically mature, where the effects of unnatural disturbance are now negligible, or a tree that is ecologically mature" (Don't only define the FOREST, define the tree as well.)."

"Old growth forest is uncut (never logged) forest or forest subject to minimal unnatural disturbance. Disturbance is regarded as minimal if evidence of disturbance exists (e.g. stumps or presence of dieback) but sampling indicates no significant difference in the structure of the overstorey or ecological function of the forest. Old-growth functions such as nesting hollows, foraging habitat, understorey refugia and substantial levels of carbon storage, including long-term maintenance of soil organic carbon stocks are evident."

Extent of agreement with statements

Respondents were asked the extent of their agreement with 15 statements (Figure 16). Rating was asked on a 6-point Likert scale with scale points — *Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree, and Unsure.*

1. 93% of all respondents either agreed or strongly agreed with the statement *"Climate change presents a threat to Western Australian south-west native forests"* with only 2% either disagreeing or strongly disagreeing with it.
2. 94% of all respondents either agreed or strongly agreed with the statement *"Retaining south-west native forests is important for carbon capture and storage"* with only 1% either disagreeing or strongly disagreeing with it.
3. An overwhelming majority (99%) of all respondents either agreed or strongly agreed with the statement *"Western Australian south-west native forests are important for threatened species and communities"* with only 0.1% either disagreeing or strongly disagreeing with it.
4. An overwhelming majority (99%) of all respondents either agreed or strongly agreed with the statement *"Western Australian south-west native forests are important for biodiversity conservation"* with only 0.2% either disagreeing or strongly disagreeing with it.
5. Only 13% of all respondents either agreed or strongly agreed with the statement *"The collection of firewood from south-west native forests is ecologically sustainable"* whereas over half the respondents (51%) either disagreed or strongly disagreed with it.
6. 98% of all respondents either agreed or strongly agreed with the statement *"Having native forests near Perth and regional towns adds to quality of life"* with only 1% either disagreeing or strongly disagreeing with it.
7. 86% of all respondents either agreed or strongly agreed with the statement *"Western Australian native forests need to be actively managed"* with only 4% either disagreeing or strongly disagreeing with it.

8. 91% of all respondents either agreed or strongly agreed with the statement *“Having access to Western Australian native forests is important”* with only 2% either disagreeing or strongly disagreeing with it.
9. Only 4% of all respondents either agreed or strongly agreed with the statement *“Harvesting of native forests should continue at current levels”* whereas a majority (83%) either disagreed or strongly disagreed with it.
10. 95% of all respondents either agreed or strongly agreed with the statement *“More areas of native forest should be protected”* with only 2% either disagreeing or strongly disagreeing with it.
11. 73% of all respondents either agreed or strongly agreed with the statement *“More should be done to get people to enjoy our native forests”* with only 4% either disagreeing or strongly disagreeing with it.
12. 18% of all respondents either agreed or strongly agreed with the statement *“Native timber jobs are important to local communities”* with close to half the respondents (47%) either disagreeing or strongly disagreeing with it and 27% neutral to the statement.
13. 89% of all respondents either agreed or strongly agreed with the statement *“Fewer areas of native forest should be available for timber harvesting”* with just 5% either disagreeing or strongly disagreeing with it.
14. Just 3% of all respondents either agreed or strongly agreed with the statement *“More areas of native forest should be available for timber harvesting”* whereas 86% either disagreed or strongly disagreed with it.
15. 73% of all respondents either agreed or strongly agreed with the statement *“No native forest harvesting should occur”* with just 12% either disagreeing or strongly disagreeing with it.

There were no major differences in responses to these questions when the responses were examined based on locality (Figure 14).

Similarly, to the responses seen when assessing industries for sustainability, differences were observed when data were examined based on how the respondent interacts with the forest, whether that be for business or recreation (Figure 15). People engaging with the forest for business viewed climate change as slightly less of a threat and fewer respondents (69%) from this category ‘strongly agreed’ that the forests are important for carbon capture and storage as compared to those who used the forest for personal purposes (77%). These differences were also observed in other questions, with people engaging with the forests for business purposes having a lower response rate to ‘strongly agree’ when it came to the forests being important for threatened species and communities, biodiversity, and quality of life, and fewer areas being made available for native timber harvesting. The inverse was observed for the statements that harvesting should continue at current levels, native timber jobs are important to local communities, and more areas should be available for timber harvesting. In these cases, people engaging with the forests for business were more likely to select strongly agree than those people engaging with the forests for recreation. Indeed, of those engaging with the forests for business purposes 21% either agreed or strongly agreed that harvesting of native forests should continue at current levels as compared to just 3% who used the forests for recreation, and 20% strongly agreed that native timber jobs were important to local communities as compared to 3% who used the forests for recreation. Of those who used the forests for recreation, 89% strongly agreed that more areas of native forests should be protected as compared to 71% who used the forests for business / employment, and 91% either agreed or strongly agreed that fewer areas of native forest should be open for harvesting as compared to 73% who used the forests for business / employment.



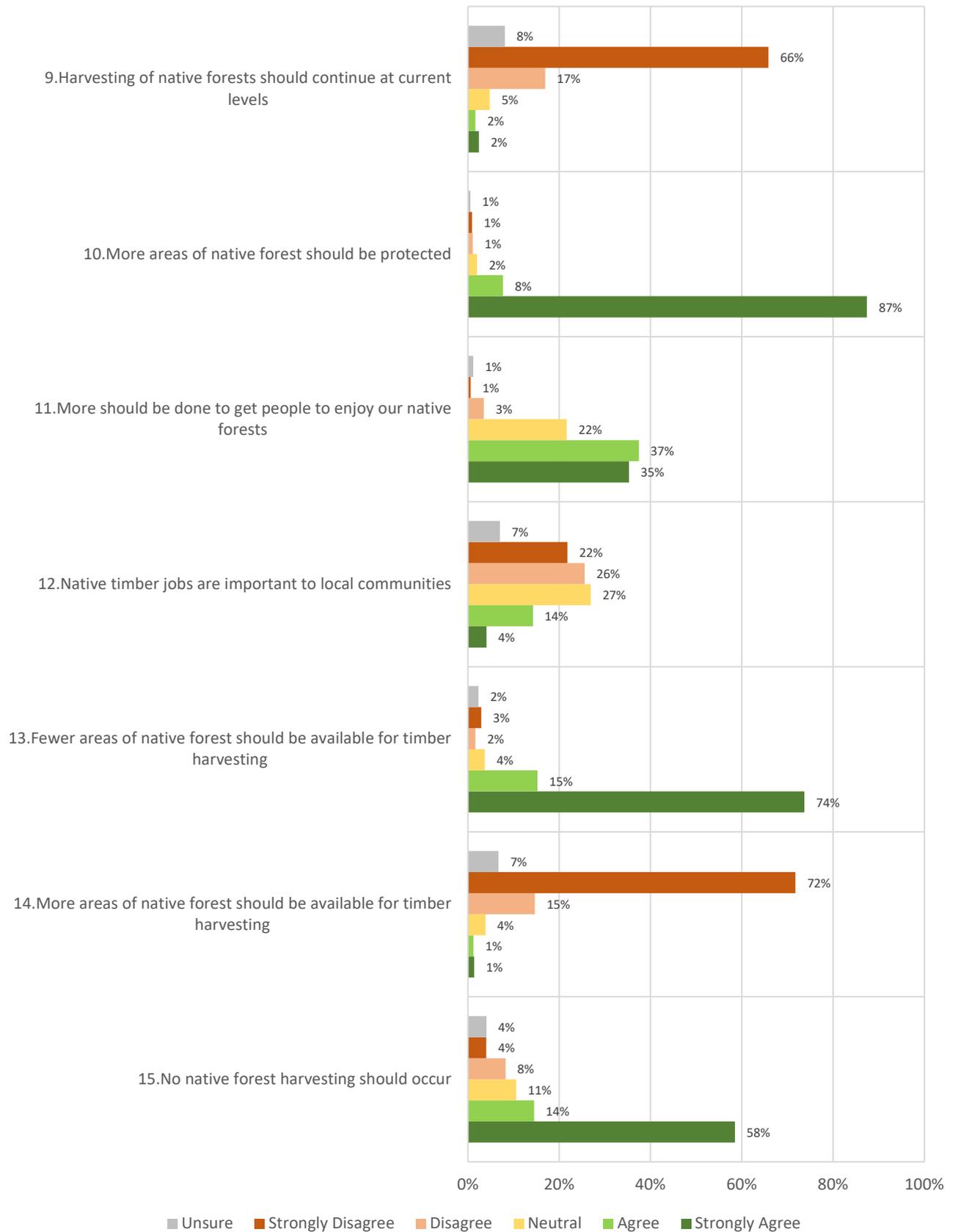
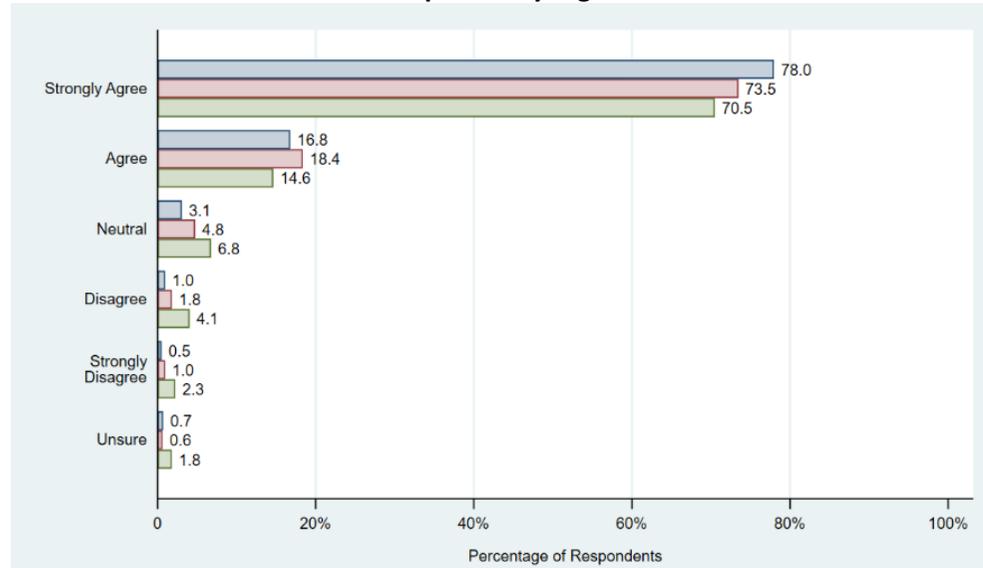


Figure 13: Respondents' agreement with given statements

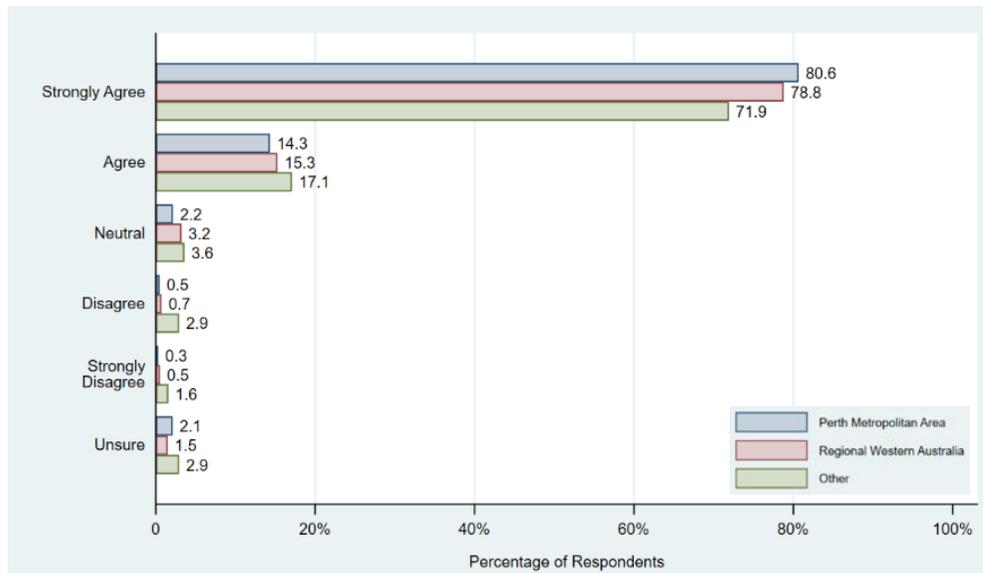
Statement

1. Climate change presents a threat to Western Australian south-west native forests

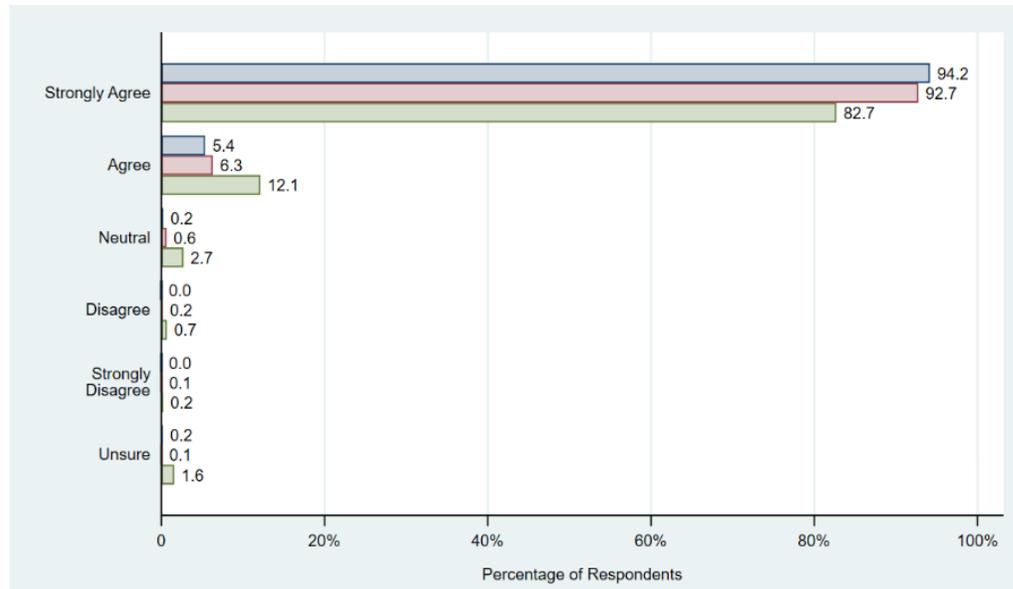
Responses by region



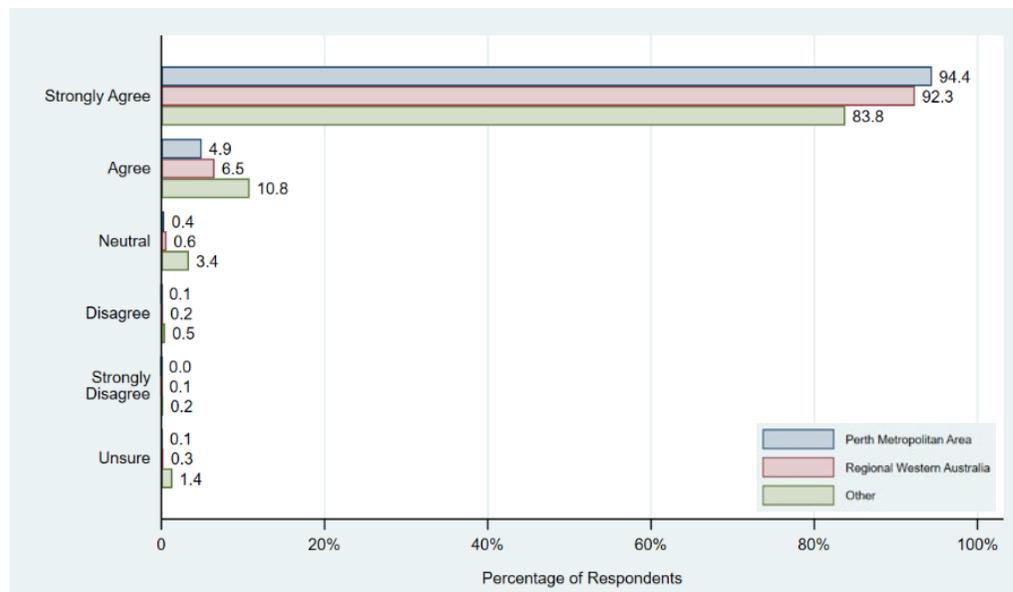
2. Retaining south-west native forests is important for carbon capture and storage



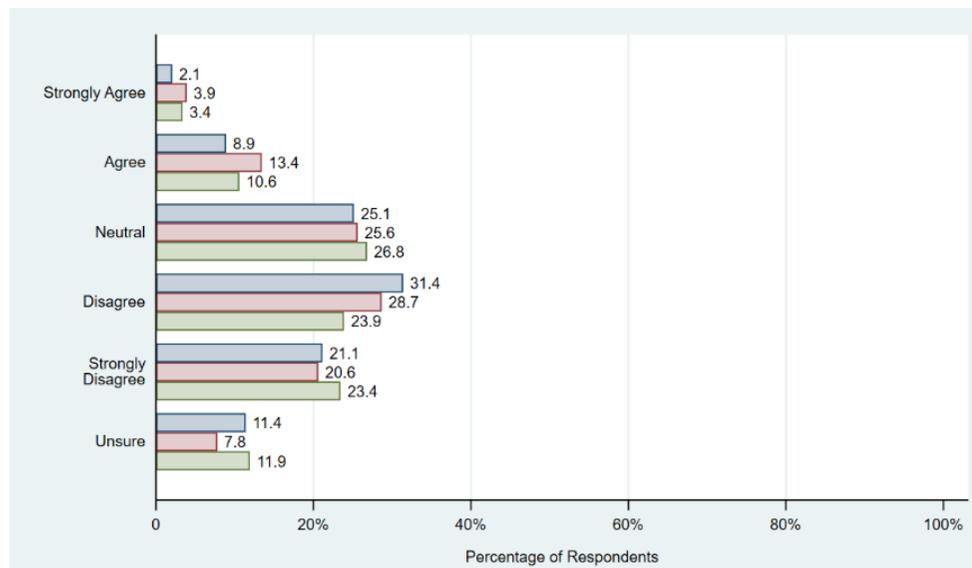
3. Western Australian south-west native forests are important for threatened species and communities



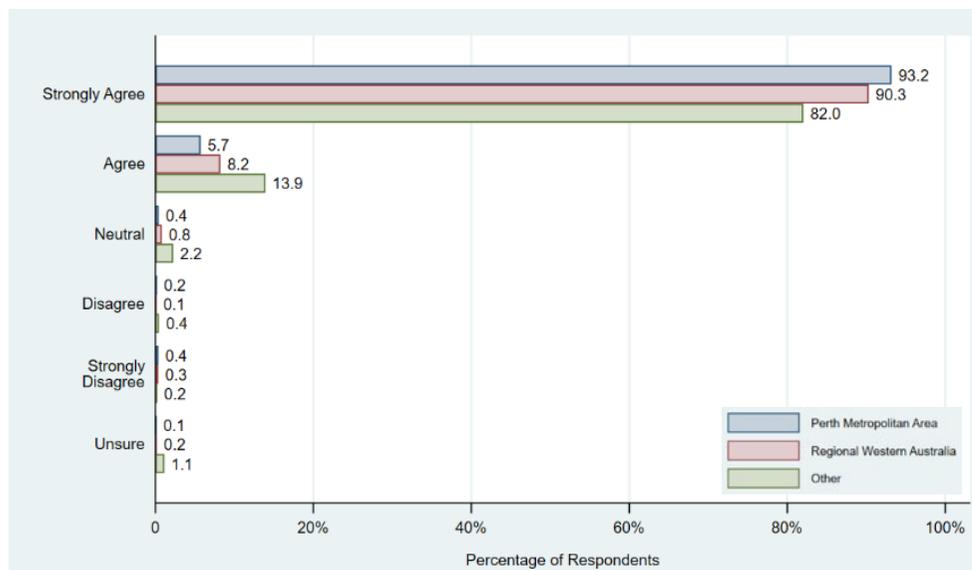
4. Western Australian south-west native forests are important for biodiversity conservation



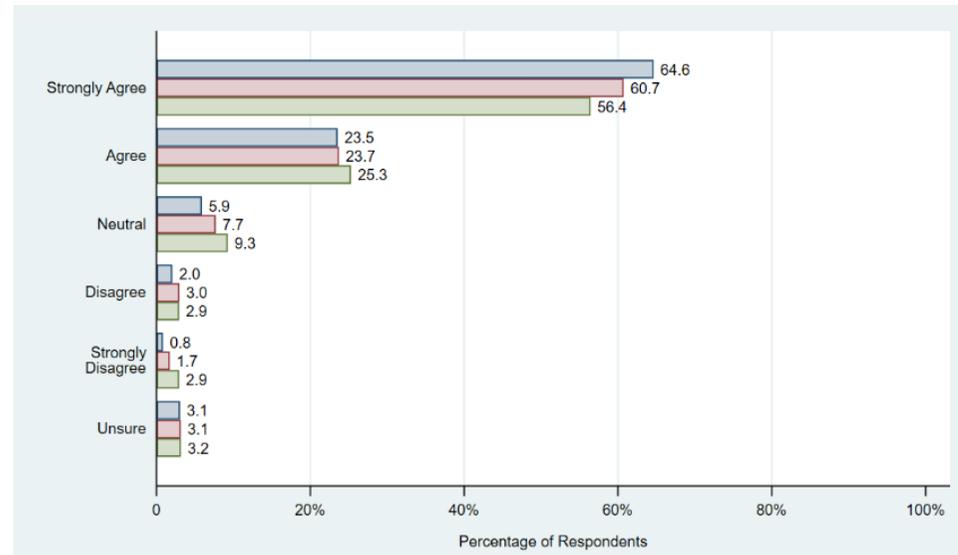
5. The collection of firewood from south-west native forests is ecologically sustainable



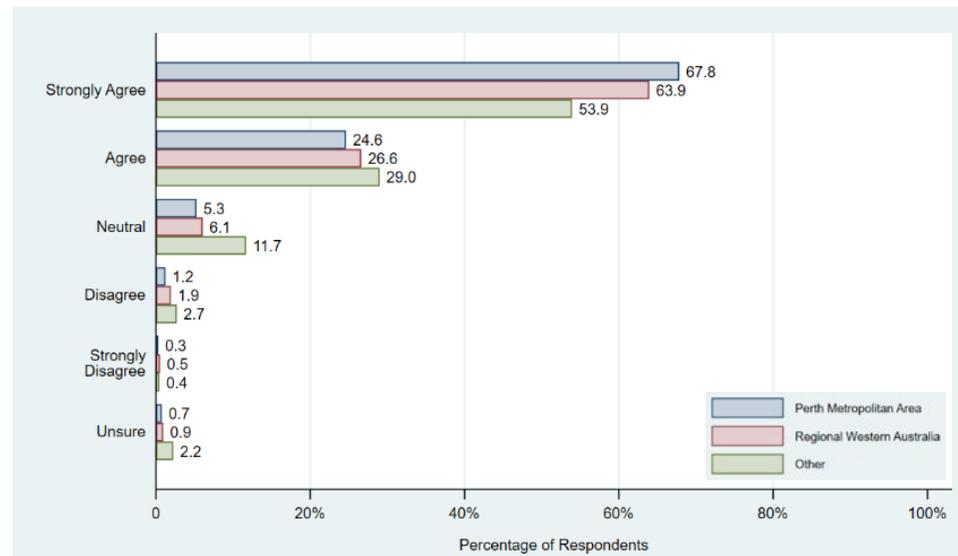
6. Having native forests near Perth and regional towns adds to quality of life



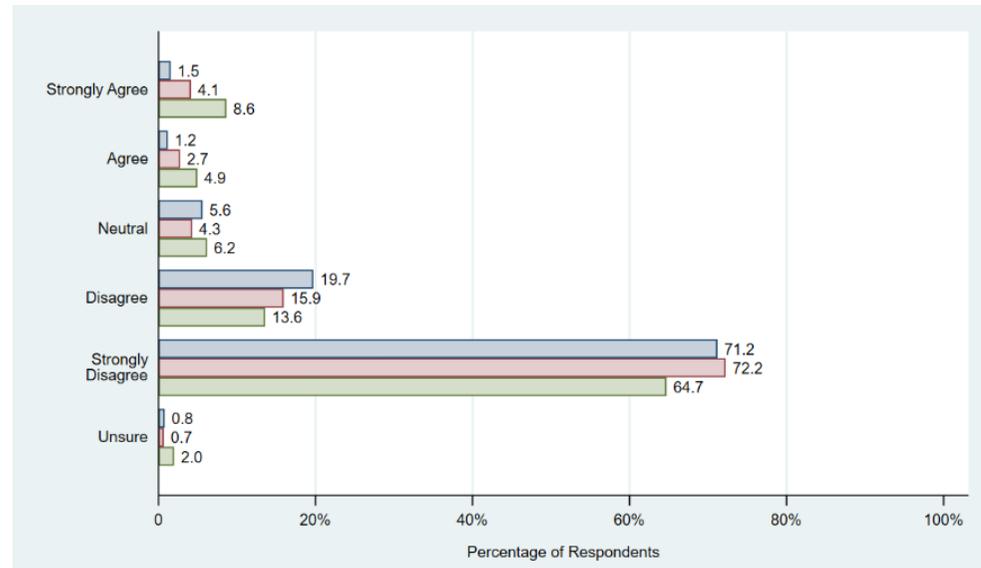
7. Western Australian native forests need to be actively managed



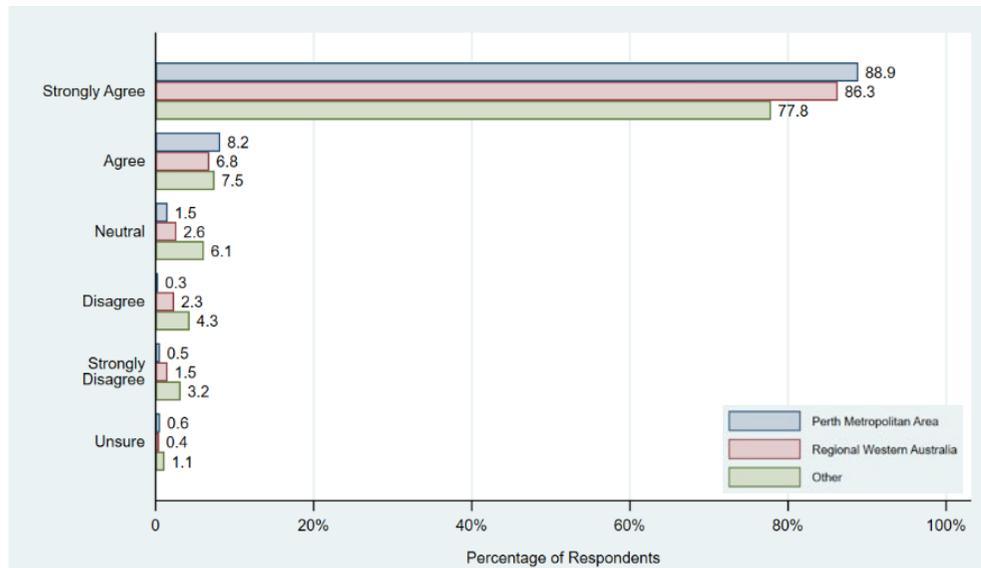
8. Having access to Western Australian native forests is important



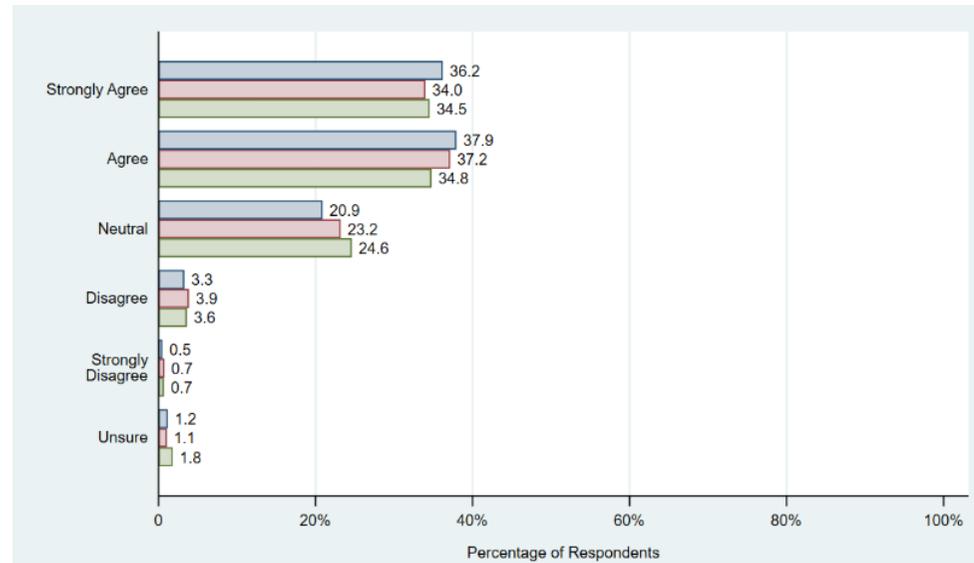
9. Harvesting of native forests should continue at current levels



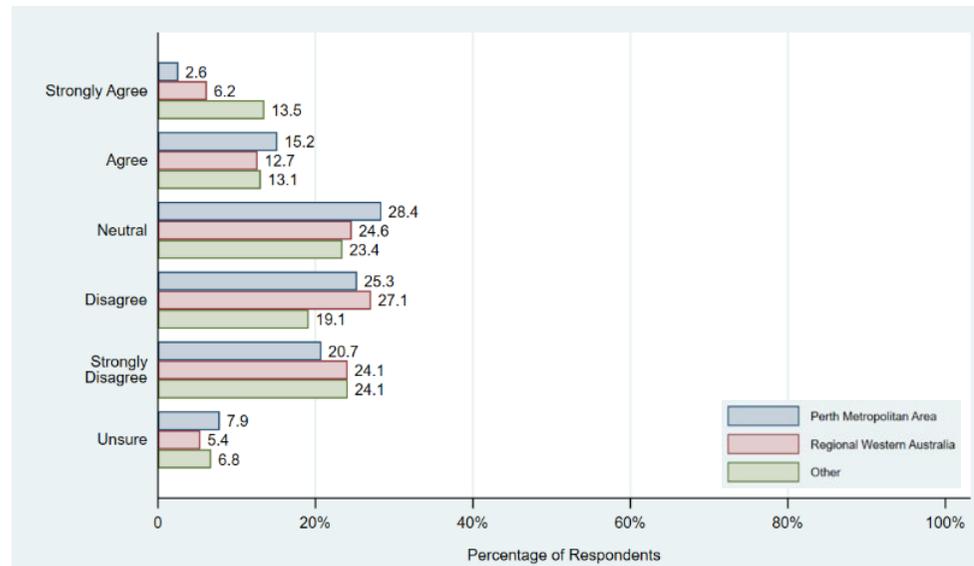
10. More areas of native forest should be protected



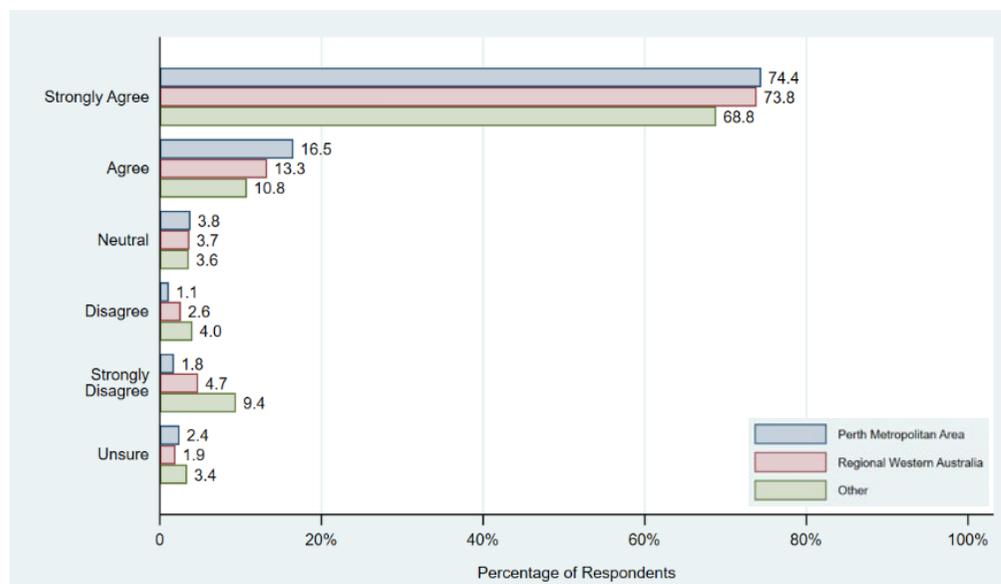
11. More should be done to get people to enjoy our native forests



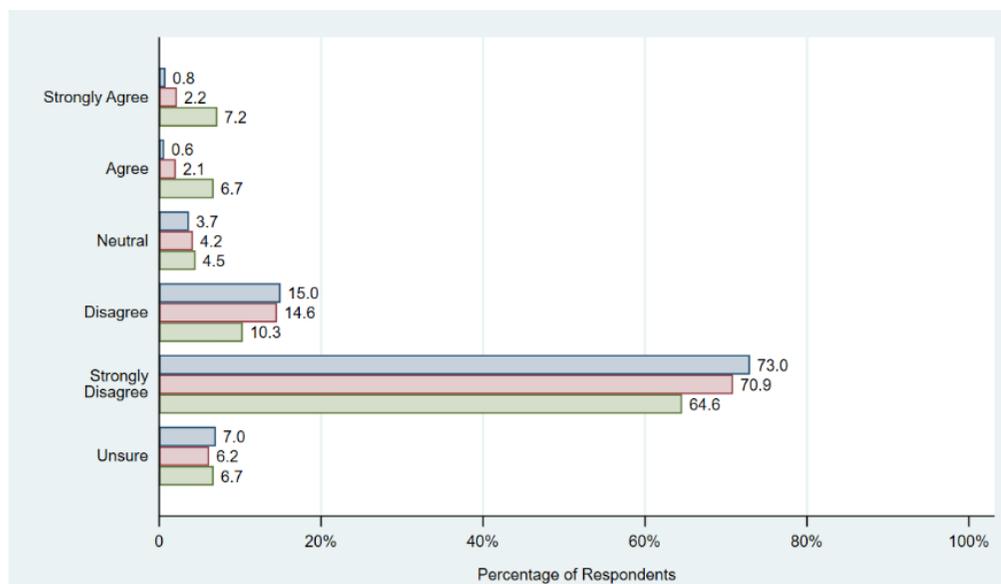
12. Native timber jobs are important to local communities



13. Fewer areas of native forest should be available for timber harvesting



14. More areas of native forest should be available for timber harvesting



15. No native forest harvesting should occur

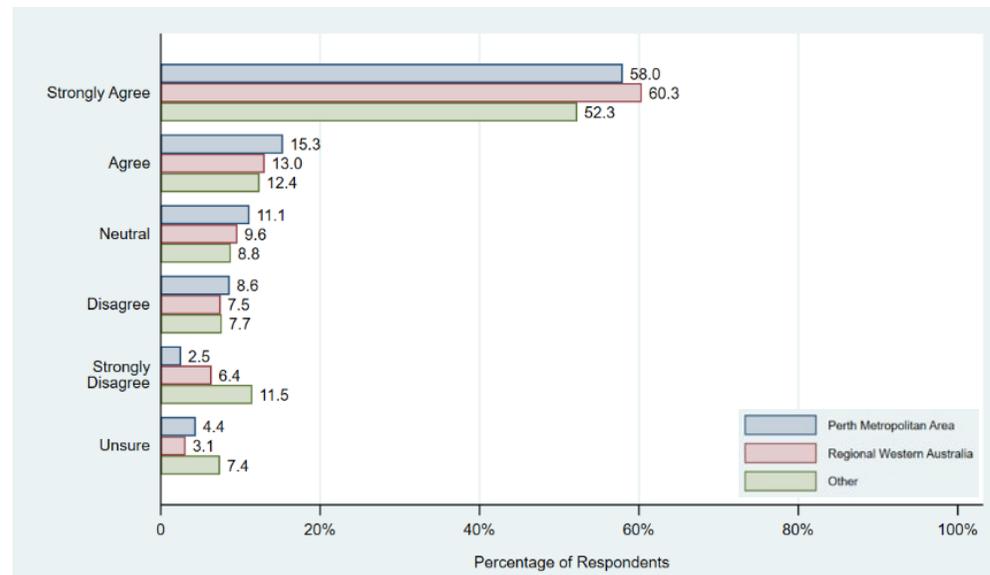
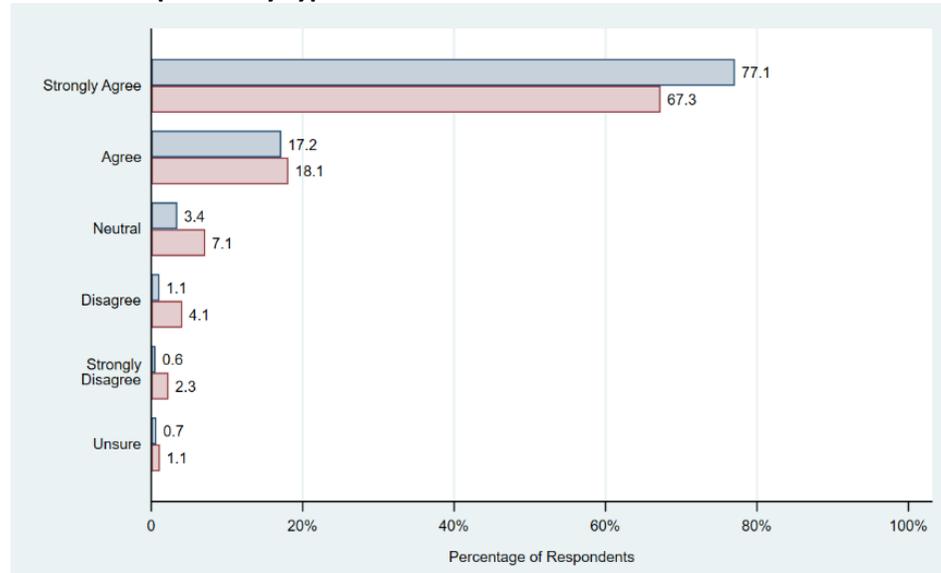


Figure 14: Respondents' agreement with given statements by region

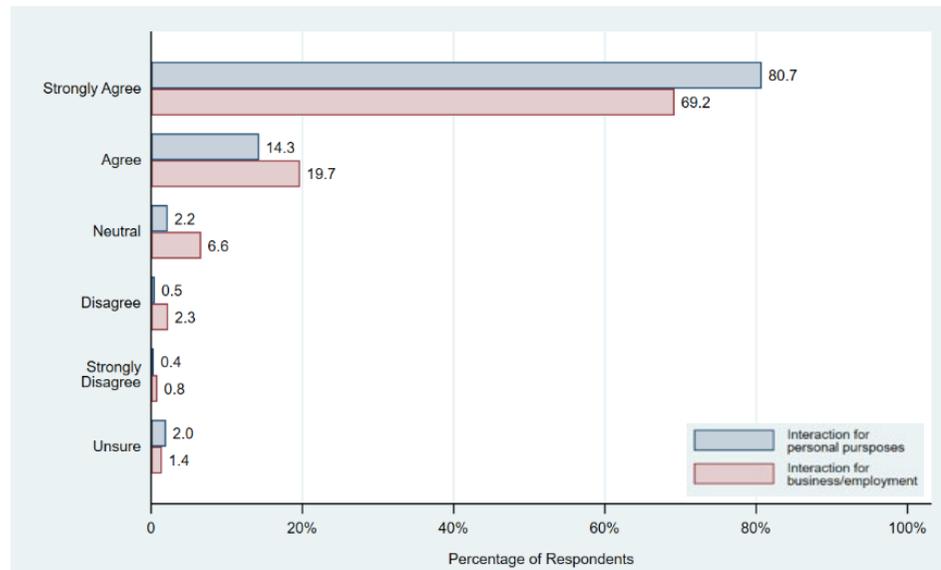
Statement

1. Climate change presents a threat to Western Australian south-west native forests

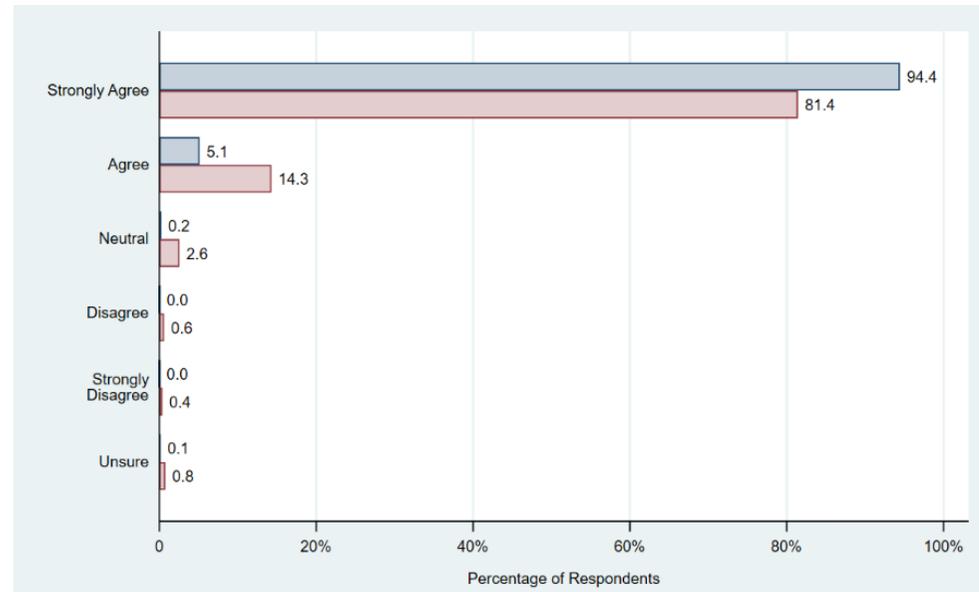
Responses by type of interaction with the south-west forests



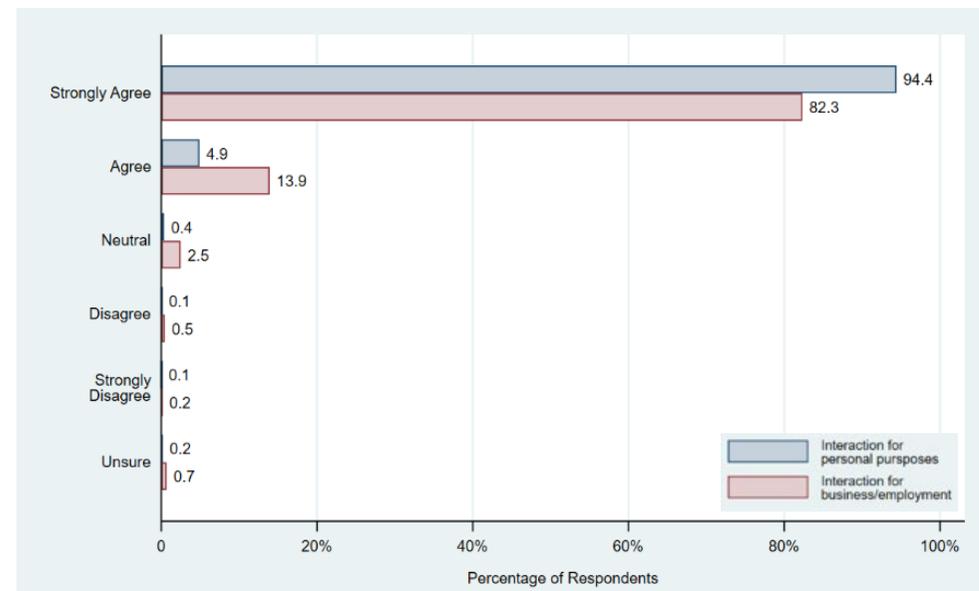
2. Retaining south-west native forests is important for carbon capture and storage



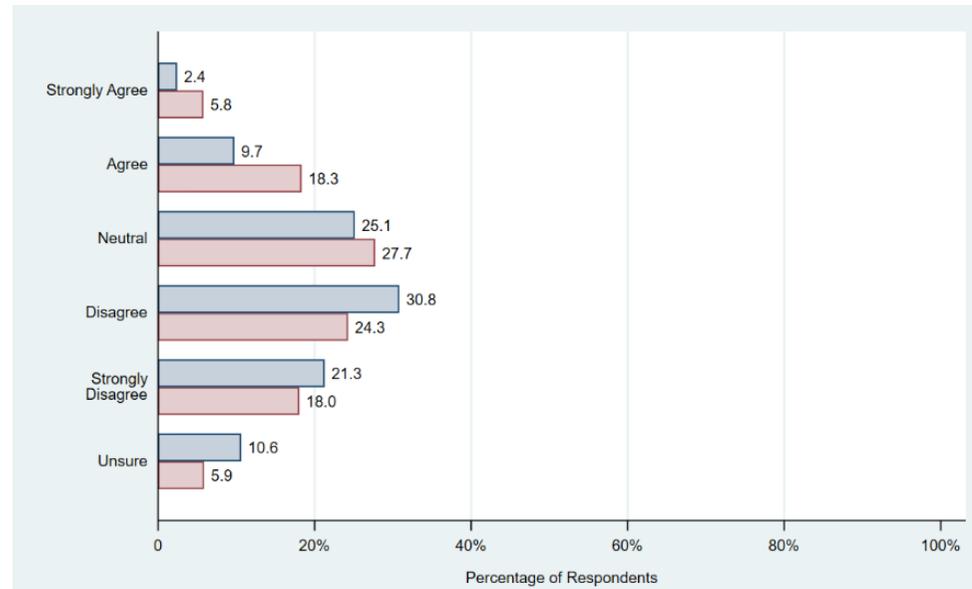
3. Western Australian south-west native forests are important for threatened species and communities



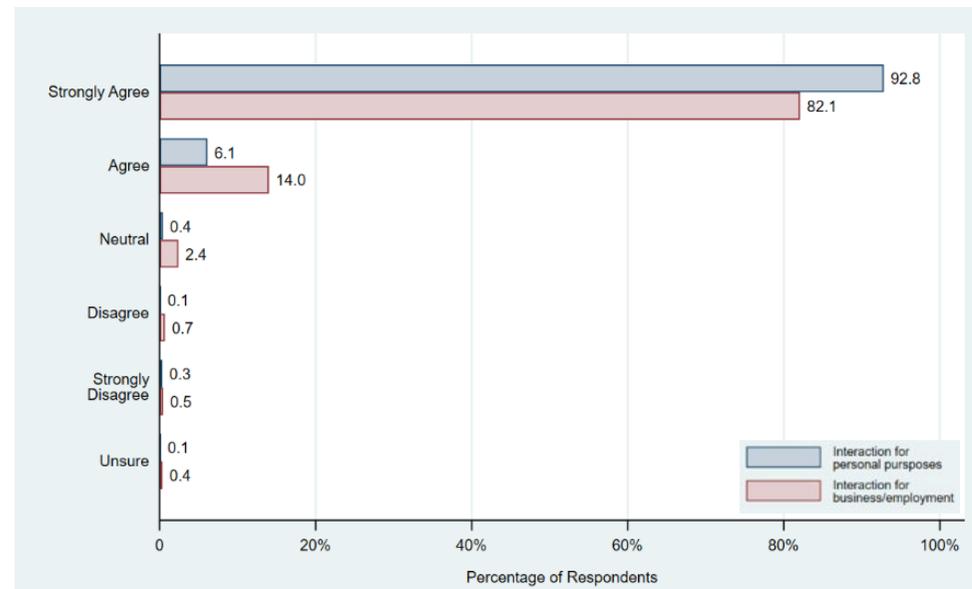
4. Western Australian south-west native forests are important for biodiversity conservation



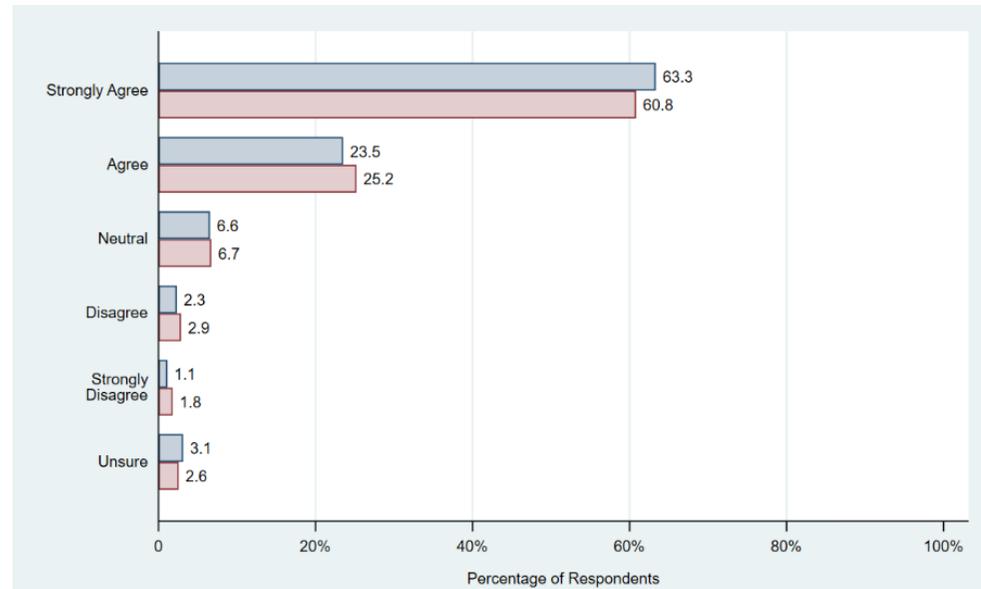
5. The collection of firewood from south-west native forests is ecologically sustainable



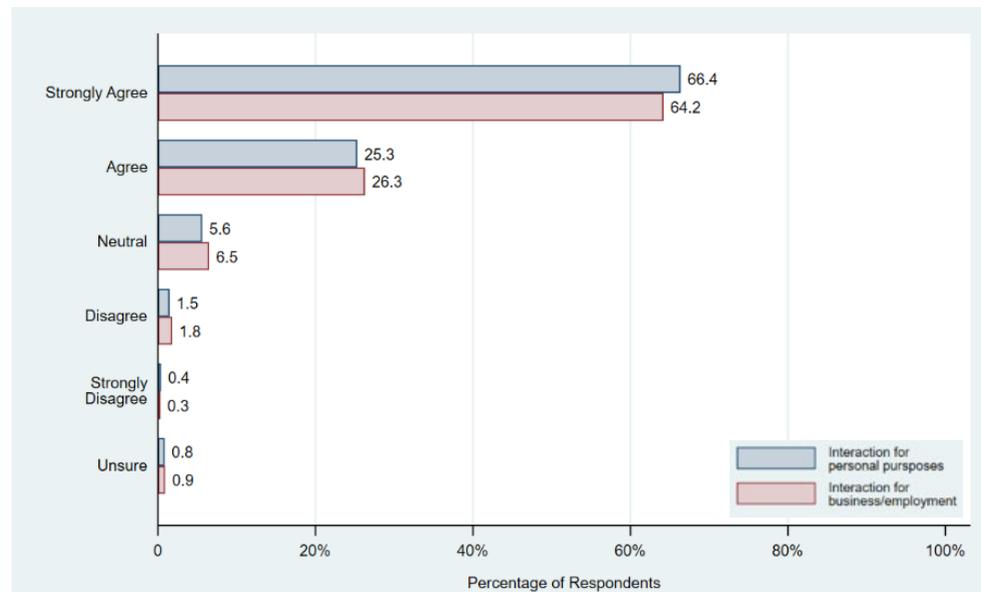
6. Having native forests near Perth and regional towns adds to quality of life



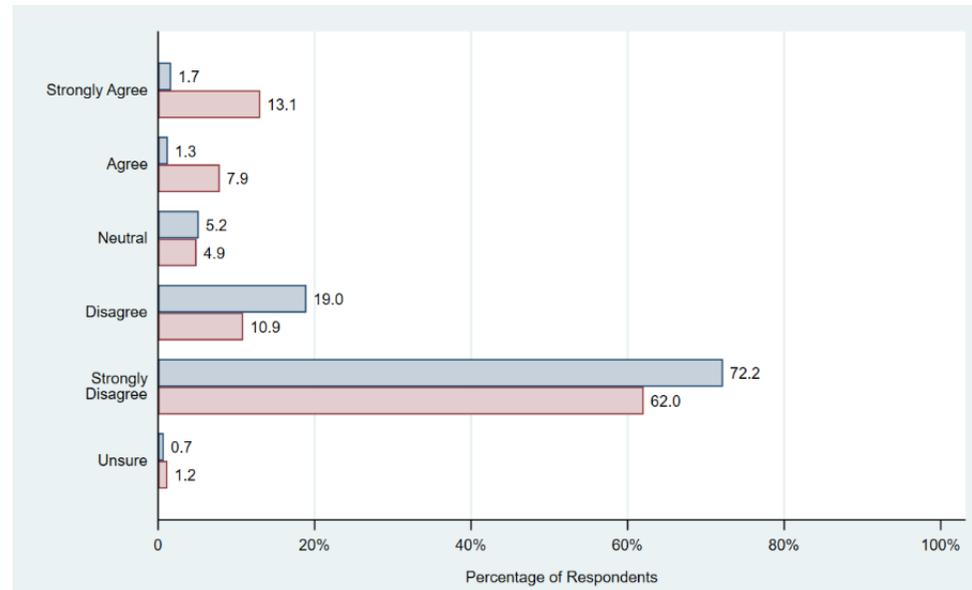
7. Western Australian native forests need to be actively managed



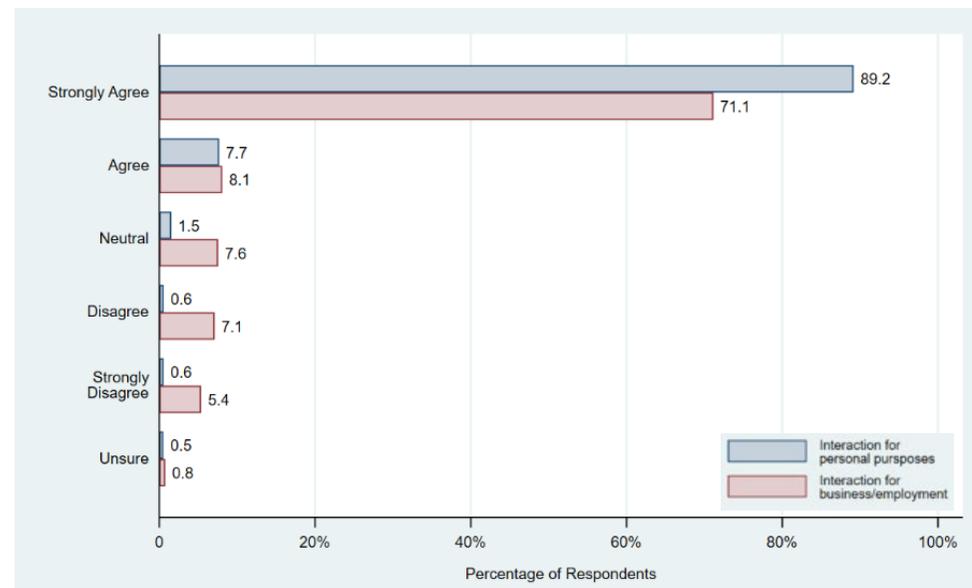
8. Having access to Western Australian native forests is important



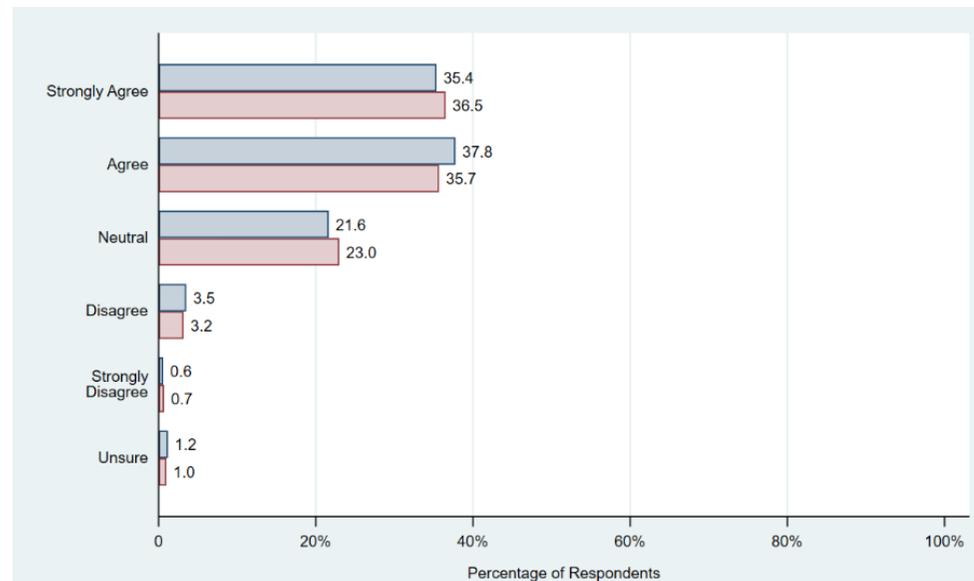
9. Harvesting of native forests should continue at current levels



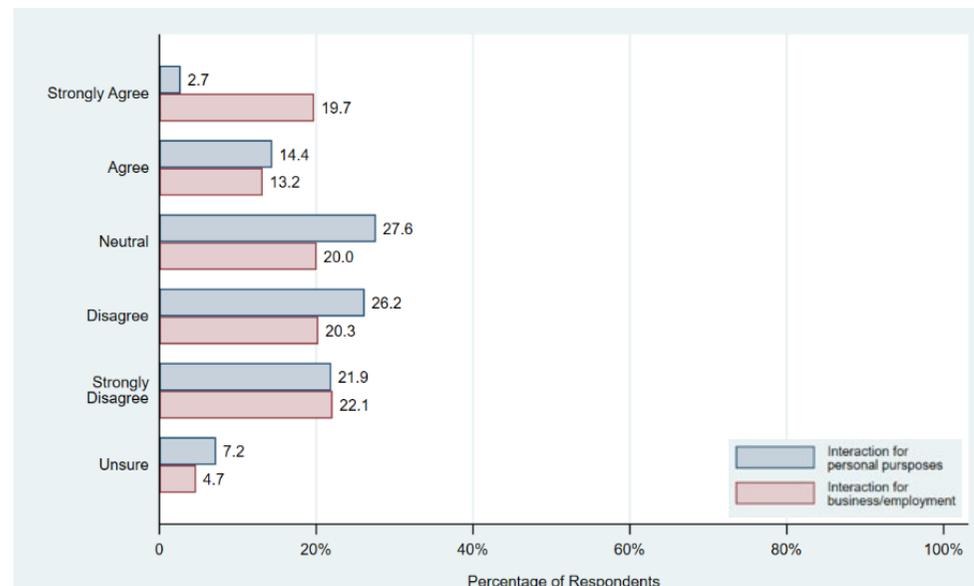
10. More areas of native forest should be protected



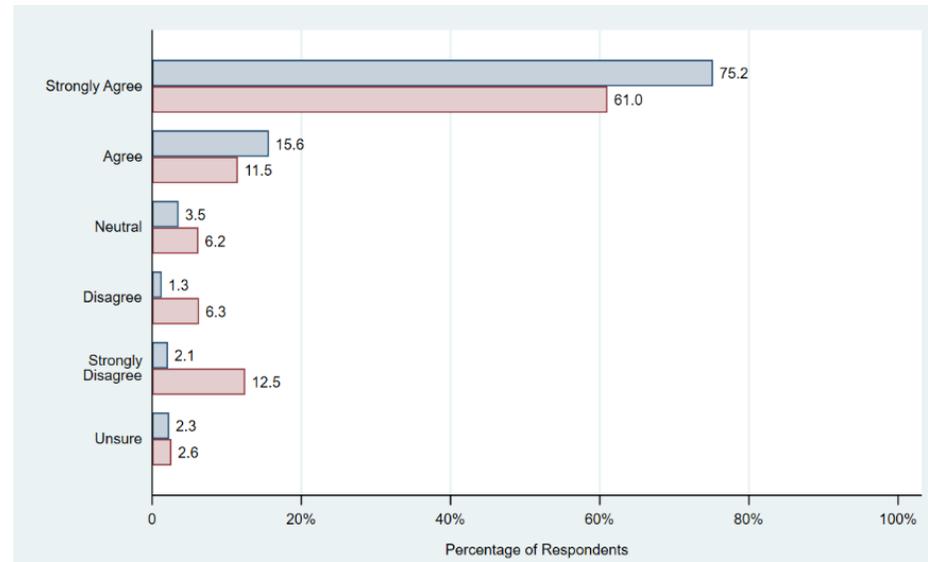
11. More should be done to get people to enjoy our native forests



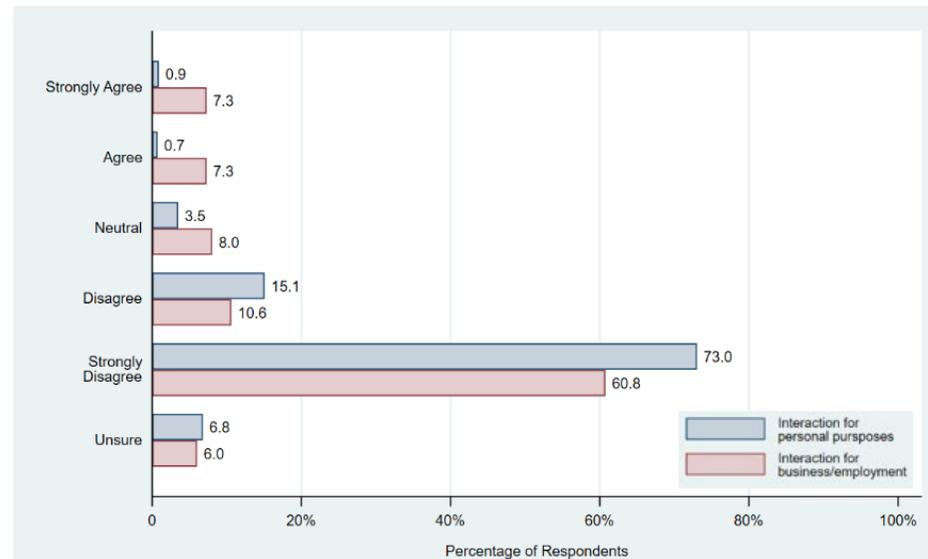
12. Native timber jobs are important to local communities



13. Fewer areas of native forest should be available for timber harvesting



14. More areas of native forest should be available for timber harvesting



15. No native forest harvesting should occur

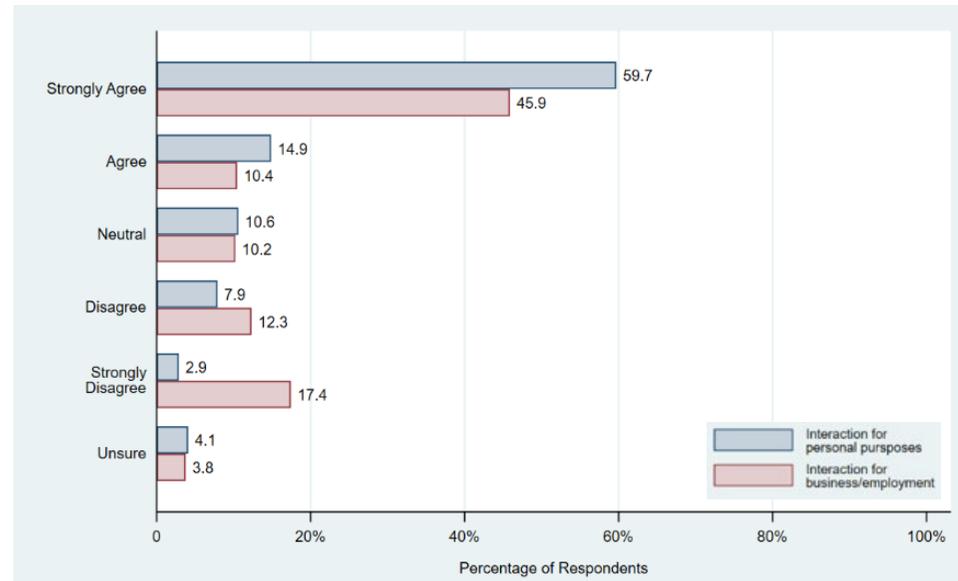


Figure 15: Respondents' agreement with given statements by interaction type with the south-west forests (personal versus business / employment)

The future of Western Australia’s south-west native forests

Current management practices under an altered climate

In response to the question “*Will all current management practices and industries operating in the south-west native forests be appropriate under an altered climate?*” 74% of respondents felt that current management practices would not be appropriate under an altered climate, 22% were unsure and only 4% said that they would be appropriate.

Management practices that need to change

When asked what practices would need to change, 83% of all respondents said that the practice of native timber harvesting would need to be changed, followed by mining (81%), fire management (71%), forest health management (58%), biodiversity and conservation strategies (51%) and the collection of firewood (46%). Just about 1% of respondents felt that no change was required in the management of the south-west forests (Figure 16).

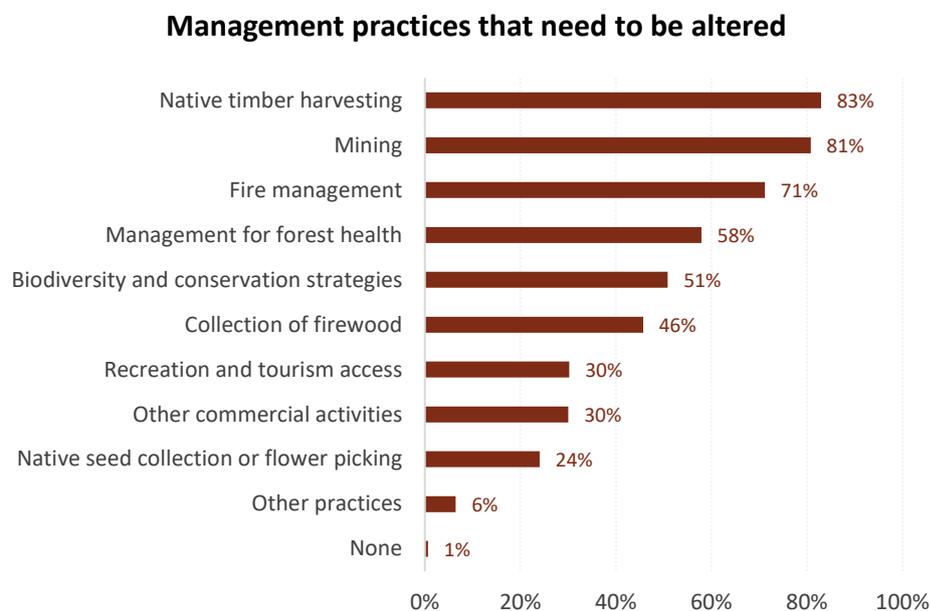


Figure 16: Management practices that need to be altered.

Opportunity for sustainable growth in the south-west forests

In response to the question “*Are there opportunities for sustainable growth in activities/industries in WA’s south-west native forests?*” over 50% said that there were opportunities for sustainable growth, 34% said that they were not sure, and only 13% said that there were no opportunities. As to what these opportunities were, of the 4,919 comments received, tourism was the top response mentioned in 58% of all comments with eco-tourism being specifically mentioned in 31% of all comments. Hiking, camping, and birdwatching were mentioned as activities that counted as eco-tourism. Educational activities and research were mentioned in 44% of all comments followed by bee keeping including honey production (29% of all comments). There were also a number of other responses for cultural tourism specifically, Aboriginal cultural activities and appreciation (8%) of responses, artisan industries and products (2% of comments).

Some responses from the survey included:

"Eco tourism (hiking, mountain bikes, even trailbikes if done right, night safari style tours). Carbon storage, Education centres to schools to do intense biodiversity/natural environment studies (weeklong course etc). Linking the different regions in more ways so that for example walking or riding from Balingup to Bridgetown to Nannup is viable by a few different routes with different accommodation/food options along the way (so walk/ride to an existing supplier, pay them for their facilities/food etc and then transit to another the day after, if you're tired stay at one for a while - just create the links/opportunities like a co-ordinated "tourist information centre rather than a town specific one")."

"Eco tourism would provide opportunities for employment for local people, therefore having a positive economic impact while also encouraging conservation and preservation of our native forests. Other opportunities for activities could involve Aboriginal/Indigenous cultural experiences and activities and the opportunity for research and education."

"Carbon storage and should become the primary management objective of the south west forests. This will provide opportunities for carbon offsets for industry as the country tracks towards required emissions reduction and abatement targets and can provide a revenue stream for Government to manage, restore and protect the SW forests."

"Cultural tourism, honey production, education programs, corporate wellness and mental health retreat days (perhaps including 'forest bathing'), cultural burning to replace DBCA prescribed burning. There is also great potential for carbon storage in existing forests, and particularly old growth forests that suck up the most carbon of all forest types. If biodiversity conservation is regarded as an activity, then there is also ample opportunity for sustainable growth there!"

"Education. Knowledge sharing on natural diversity. Indigenous knowledge of plants, bush tucker, bush medicines, harvesting practices to benefit growth and Noongar knowledge of seasons and seasonal practices to be in harmony with the forests. Native forest logging, mining and inappropriate burning are undermining these sustainable sectors and cultural connections to the forests."

"For sustainable industry only - timber and mining is not one of those. Developing and supporting industries that use and support the native habitat i.e. all levels of eco-tourism, resorts etc. Additionally, entertainment access for Film & TV to create memorable and impactful entertainment within this area to boost greater awareness, tourism and connection."

"Forest silviculture, carbon management and wood production can all be optimised for better forest health, resilience and sustainability outcomes. I do not believe that the silviculture being applied at the moment is optimising the stock of sequestered carbon and the rate of carbon draw-down. Inadequate silviculture, with an operational focus on sawlog extraction, is failing to maintain stand condition and productivity. The value of production of forest products should be optimised to reflect the biological productivity of the various product classes. That is, if under current silviculture, the forest yields 10t of residue products for each tonne of sawlog, that needs to be the ratio of product sales. Failure to do this inevitably wastes resource and undermines sustainable silviculture."

"High-value jarrah and karri honey production, research, eco-tourism, mental health refuge, education, artisan timber products from windfall timber and recyclable wood that does not require logging of native forests."

"Honey production is a very underrated industry which has great potential and is being destroyed by continued logging. Aboriginal cultural interpretation has huge potential. Education and research must continue in intact forests. Low impact, respectful eco-tourism could continue in forests and will only benefit from the stopping of native forest logging."

"Mountain biking hike trails, and trail bike trails all use a single trail and don't leave rubbish behind like cars and 4x4."

"Nature-based tourism and adventure tourism, PROVIDED that measures are in place to protect sensitive ecosystems from human disturbances and associated impacts (e.g. pathogens, wildfire, rubbish, illegal access/4-wheel driving) via education and severe penalties for misuse."

"Ziplines are a fun and non-invasive way to enjoy nature so people can appreciate it and possibly even make it a not for profit business that just puts all the money back into protecting the forest. Also, community projects where people can come participate in the rehabilitation of the native species both flora and fauna. An activity that engages you with what you're working towards. Even better yet have the rehabilitation centre at the bottom of the zip line so people get to see where these plants and animals are from, then get to collect and raise seeds, incubate wild birds eggs, take care of other marsupials, learn about the forest history etc."

Barriers to be overcome to unlock potential for sustainable activities

In response to the question “*Are there any barriers that need to be overcome to unlock the potential for sustainable activities/industries in WA’s south-west native forests?*” 53% said that there were barriers for sustainable activities, 41% said that they were not sure, and only 6% said that there were no barriers. As to what these barriers were, of the 8,203 comments received, logging and deforestation were mentioned in 46% of all comments, mining in 32%, and fire management in 25%. Respondents felt that education of the public and legislation based on impartial science was required to ensure the growth of sustainable activities in the south-west forests.

Some responses from the survey include:

“Not enough effective legislation to protect native forests. Lack of science.”

“Logging and the current prescribed burning regime. Native forest logging must stop, fire regimes need to be totally rethought.”

“Financial Investment.”

“Investment in infrastructure, legislation based on impartial science.”

“Science awareness and education. cultural integration and good regulatory regimes.”

“Political will to stop logging native forests is the biggest barrier to unlocking further sustainable industry.”

“Communication barrier between production and conservation groups.”

“Laws protecting the forest, inadequate climate change policies, investment in fossil fuels.”

“Over logging, dieback, feral animals and weeds.”

“Native timber harvesting, clearing for mining and the prescribed burning regime are barriers for the following sustainable industries and activities: The bee keeping industry: This is a multibillion-dollar industry essential for food security and human existence in WA. Carbon draw down and storage (the future of humanity on this planet) Tourism and small businesses in regional economies that rely on tourism Connection to country, indigenous cultural heritage Agricultural sector and water Leisure and recreation Biodiversity, Science, research.”

“Misuse of forests by uninformed public (illegal firewood and inappropriate 4WDing). Mining and deforestation. The general obsession with Jarrah firewood and many mining company processing plants for using Jarrah as fuel. Weed and dieback infestations, degradation through habitat fragmenting. Excessive burning, widespread burns, too frequent burns WILL change the species composition in many of our forests and I feel there is a huge lack of study on individual species and plant communities and the post fire succession. At this rate we will never know the outcomes if we continue to burn at the current regimes.”

“Misconceptions about native forest harvesting. It is sustainable and trees regrow! Can't say that about iron ore, bauxite or coal!”

“The forests are being destroyed for progress, for the sake of jobs, for the sake of humankind. But we forget that by destroying the native forest we’re disrupting an extremely important ecosystem that is vital to the future of our environment and our overall health and well-being. We’re already paying the price of industrial agriculture. If we continue to allow businesses to profit off trees which have been growing, building and protecting a diverse ecosystem for decades, we’ll eventually just sign our own death warrant. The profitability of businesses and the jobs it creates cannot be what defines whether we take a natural resource or not. We need to stop this regardless of the consequences. Good businesses can pivot and work out a new way to make money. We need to regulate use of our forests more highly and hold every single person using them to account.”

The role of the south-west forests in generating carbon credits

In response to the question “Thinking about carbon storage specifically, could there be an opportunity for WA’s south-west native forests to play a role in generating Australian Carbon Credit Units or other carbon credits (ACCU)?” 54% of respondents agreed or thought that maybe the south-west forests could play a role in generating carbon credits. 41% of respondents were unsure, indicating that this was a challenging question for the respondents to answer and that there is a large proportion of with uncertainty on the opportunities for carbon in Western Australia. Only 5% of the respondents thought that there was no opportunity for the forests to play a role in carbon credits.

Generally, respondents believed that legislative reform would be required, increasing the kinds of activities that would qualify for the attainment of an ACCU. Ecological restoration of cleared and degraded areas was a common strategy identified that could be used for ACCU generation. Other responses were in relation to management strategies to reduce the amount of CO₂ released into the atmosphere, including the retention of forests and avoiding intensive harvesting. A carbon tax (or emission caps/levies) was also suggested by respondents to manage carbon, noting that these strategies do not generate ACCUs specifically.

Note, some of these have been rephrased for clarity.

“Retain all areas of old growth and avoid intensive harvesting - otherwise the generation of landscape traps can limit the effectiveness of the retained forest due to the increased fire sensitivity of regrowth.”

“Put a price on emissions, so industries can meet end of pipe standards & be involved in emission goals. This could be realised through stronger regulations. Often, industry can conform to an emissions benchmark, but the trade-off often is that they find alternative ways to continue to pollute. Capturing the emission levels on all fronts is important and could be better realised by better industry standards. Again, I don't know all there is to know but incentivising low emissions for industry at this point in time is vital.”

“This is an extremely specialist question to chuck into a survey for the general public. I'm guessing that businesses might be able to contribute an annual carbon credit which would go towards care and maintenance of the forests (contrary to popular belief, they don't just manage on their own, when there are threats from dieback, feral animals, weeds etc). The forests should be retained whether or not they are generating \$ for carbon credits. They are essential for many other reasons. But perhaps companies trading carbon credits might generate some income for people to properly manage the forests. DBCA seems to be pretty understaffed and underfunded, so additional \$ seems like a reasonable idea.”

“By restoring degraded, or expanding existing, biodiverse forests.”

“Improve legislation that governs what can be counted as carbon offset.”

“This is a complex area, however, the native forests in the south-west could be protected, and associated with this generate carbon credits for other aspects of society that emit carbon, e.g. agriculture. It is critical that our State moves towards renewable energy, and addresses key issues associated with climate change, and protection of our SW Forests could be a component in addressing these complex challenges.”

“Offsets to be managed in conjunction with the Noongar land estate. Government acquire land where 20% or more of timber exists for green growth, de-stocking and soil sequestration can occur.”

“Carbon tax to generate demand. Framework which values multifunction ecosystem services properly to identify synergies. Transition native logging.”

“Research the carbon benefits of the forests.”

“Through large-scale ecological restoration of forest ecosystems, particularly throughout the wheatbelt.”

Required data on carbon storage - both in above and below ground biomass

Use of the south-west forests in future

In response to the question “How would you like to see the south-west native forests used in the future?” we share some comments from respondents on how they would like the forests to be used.

Responses to this question were reflective of the key messages from the survey and are reflected in a word cloud below (Figure 17). There was a strong focus on seeing a shift towards more sustainable activities and industries including tourism, carbon, cultural activities and education and using the forests less, or not at all, for mining and native timber harvesting. Many responses also highlighted the importance to manage the forests appropriately for conservation of biodiversity particularly in the context of climate change.



Figure 17: Words cloud from responses to the question, “How would you like to see the south-west native forests used in the future?”

A selection of responses to this question from the survey are provided below:

“The WA Government should conserve and rehabilitate what little remaining forest and bushland we have, and use it only for environmentally conscious tourism, educational, and scientific purposes. The flora and fauna of the south west is some of the most unique and diverse in the world, and once they know of it, people will want to see that for themselves.”

“Existing areas fully protected and extended, Ranger programs extended, timber harvesting and mining activities banned in native forests, burning stopped, eco-tourism and bee keeping, and other eco-friendly activities developed.”

“I would like to see Tourism, conservation and education, being at the heart of our native forests. Having to put a price on nature is extremely difficult, but we would be making more money if we had a more appealing management plan in place where tourism was invited and encouraged.”

“More tourism and no more logging and mining. A focus on regeneration for flora and fauna.”

“I’d like them to be looked after, nurtured and grown rather than cut down. We also need to practice Aboriginal fire management practices.”

“For conservation, tourism and passive recreation. The value of forests is dependent on them being alive. Logging and mining are incompatible activities for our forests.”

“Greater focus on remediation, reforestation, restoration of old growth areas, minimise commercial activities, maximise recreation.”

"It doesn't have to be USED. It can just EXIST. Not everything is about us. It would be nice to have more ecologically appropriate recreational access, but as long as we are burning it all down there's not much point."

"Education, carbon storage, ecological based recreational, positive mental health retreats, scientific research, ecotourism, first landowner-based tourism and education, apiary-based businesses."

"Forests should be used for a mix of recreation, production and conservation. I am concerned that increasing the area of forest locked in national park or other conservation estate limits the health of these areas due to lack of road forestry road maintenance, stagnant forest. Old mature forest collect less carbon dioxide than growing young forest; which is one reason responsible."

"For conservation, supporting recreation and tourism, and towards climate mitigation (i.e., reforestation and preservation)."

"As a source of sustainably managed timber for high value products, as an area for passive and active recreation, and protection of biodiversity."

"Focus on ecosystem functions and services. Depoliticise fire management to explore (actual) solutions for a changing climate. Acknowledge risk on ecological timescales to biodiversity and ecosystem services of human activities and climate change. Integration of societal values and education with bush."

"I would like to see them protect to maximise biodiversity conservation outcomes. If they can also be used for carbon credits that is great, although we need to also revegetate large areas, and this could assist carbon credits. I would like there to be managed use of some areas for recreation, ecotourism, education and research. I would like the apiary industry to be heavily regulated to ensure that there is minimal impact on threatened species, that rely on hollows in old trees for breeding and habitat."

Management of the south-west forests to support a sustainable future

In response to the question “*How do you think forests should be managed to support a sustainable future?*” responses called for a) a change in management activities currently occurring and b) a shift to a more sustainable management approach that considers the impacts and mitigation strategies for climate change.

Responses focussed on having less or no mining and native timber harvesting in the south-west forests. Fire management was also identified to be a priority for survey respondents with the response that this management practice needs to change. There was a strong voice calling for consultation with Aboriginal elders on traditional management practices, particularly in relation to fire.

Biodiversity protection, recreation, sustainable eco-tourism and climate mitigation were all high on the respondents’ agenda and were identified to be key features for the future of south-west forests.

A selection of responses to this question from the survey are provided below:

“Our SW forests are critical to manage to ensure maximum uptake and storage of carbon, future optimal health, to enable them to play their role in mitigation of climate change and precipitation for rainfall. We know well that intact forests generate clouds and rainfall and the clearing of the south–west has contributed to drops in rainfall and surface water runoff. I'd like to see the entire forest managed for biodiversity rather than low value timber products. We can only manage sustainably if we measure...and as such we must develop sophisticated, reliable, accurate and repeatable methods for measurement of carbon, forest health, forest cover, structure, biodiversity etc. This can be achieved through a combination of remote sensing and in-situ methods and setting KPIs within any forest management plan that are achievable and measurable.”

“We need a huge fundamental shift. We need to change the short-term thinking and make plans for the next 100 years. We need to look at how Aboriginal land management maintained a successful landscape for thousands of years. We need to reduce deforestation to zero. We need the younger generations to be empowered through programmes of expanding, regenerating, biodiversity, eco-friendly tourism opportunities and a complete re-think of how we see (and 'manage') 'resources.'”

“Halt native forest logging, reduce bauxite mining to allow a transition away from this industry and overhaul the prescribed burning. Including an independent investigation into the reduction (if any) of wildfire. The 1950 unscientific reasoning for prescribed burning needs to be updated to current scientific standards. Fuel load management needs to be prioritised to protect assets and leave large forest reserves, nowhere near structures, alone.”

“Greater reliance on Aboriginal methods of fire management, huge reduction in harvesting/cutting down trees generally.”

“They should be managed for biodiversity protection, recreation, sustainable eco-tourism and climate mitigation. Forests need to be valued for their own right, for their role in drawing down and storing carbon, for biodiversity protection, for the role they play in keeping our air clean and our streams flowing and for the role they play in protecting our soil.”

“I would like to see better management of burning in native forests, and NO MORE LOGGING of native forests. (I am not impressed with your use of the word 'harvesting', by the way. It makes it sound like farming, something you have planted, and will then harvest. You can harvest plantation wood, but you are LOGGING and CLEARING native forests, and the attempts of the survey designers to obfuscate the issue by calling it harvesting is deplorable.)”

Bring in Aboriginal management practices particularly in burn offs – the way it is done now is unsustainable

“Land management should be taken with a purely scientific approach, not a political one. A serious increase in budget to allow for more staff to properly manage the forests with pest control, correct burning techniques and reforestation will make for better forests and replace the jobs lost to native forestry when it is banned.”

“We should learn from Aboriginal elders. Cool burns instead of destructive fire bombing and END to all native forest logging. We have enough tree farms.”

Key demographics

The majority of respondents were from the Perth Metropolitan Area (64%) followed by respondents from regional Western Australia (32%). There were even respondents from other states, and those who preferred not to disclose their postcode, both of who were categorised under “Other” (Table 1). Response rate per capita based on Commonwealth electoral region showed that responses from Forrest and O’Conner were highest with 1.88% and 1.06% of the population responding to the survey. Regional areas (0.81%) in general had a higher response rate than metropolitan areas (0.45%) even though the net totals from Perth metropolitans compromised 64% of all responses (Table 2 and Figure 18).

Most respondents were women (56%). Men comprised two-fifths (40%) of all respondents. Under 1% of respondents identified themselves as “Non-binary/third gender” while about 4% preferred not to disclose their gender (Table 1).

Responses to the survey were received with a broad representation across all age groups with most respondents in the category of 35–44 years followed by 25–34 years and those 45–54 years old. The average age of respondents was 45 years. A little over 1% of respondents were under 18 years of age.

Respondents were mostly well educated with about 29% having an undergraduate degree followed by those who had a postgraduate (Master or Doctoral) degree (19%). A little over 1% of respondents were still in school.

Most respondents earned between \$78,000 - \$129,999 annually (\$1,500 - \$2,499 per week) before tax. However, a sizable fraction of respondents (21%) either skipped the question on income or chose not to answer it.

Table 1: Key demographic information of survey respondents

Key demographics	Number of responses	Percentage of total
Postcode		
Perth Metropolitan Area	10,901	64%
Regional Western Australia	5,479	32%
Other *	564	3%
Gender		
Female	9,744	58%
Male	6,252	37%
Non-binary/ third gender	145	1%
Prefer not to answer / skipped question	803	5%
Age		
Less than 18	235	1%
18–24	1,341	8%
25–34	2,961	17%
35–44	3,383	20%
45–54	3,082	18%
55–64	2,839	17%
65–74	2,065	12%
75 or older	631	4%
I prefer not to answer / skipped question	222	1%
Responding on behalf of a business / organisation	31	0.2%
Highest educational attainment		
Still in school	208	1%
Some high school	219	1%
Completed high school	1,241	7%
Cert I or II (Vocational training)	144	1%
Cert III or IV (Vocational training)	1,706	10%
Diploma or Advanced Diploma	2,154	13%
Undergraduate (Bachelor) Degree	4,900	29%
Graduate Certificate or Diploma	2,157	13%
Postgraduate (Master or Doctoral) Degree	3,278	19%
I prefer not to answer / skipped question	937	6%
Household Income (before tax)		
Less than \$15,599 (less than \$299 per week)	414	2%
\$15,600 - \$25,999 (\$300 - \$499 per week)	1,049	6%

\$26,000 - \$51,999 (\$500 - \$999 per week)	2,034	12%
\$52,000 - \$77,999 (\$1,000 - \$1,499 per week)	2,160	13%
\$78,000 - \$129,999 (\$1,500 - \$2,499 per week)	3,513	21%
\$130,000 - \$207,999 (\$2,500 - \$3,999 per week)	2,840	17%
\$208,000 - \$415,999 (\$4,000 - \$7,999 per week)	1,196	7%
More than \$416,000 (more than \$8,000 per week)	164	1%
I prefer not to answer / skipped question	3,577	21%

* *Other* includes respondents who did not provide a postcode, interstate respondents and some overseas respondents

Table 2: Response rate per Commonwealth electoral region

Region	Number of responses	% per capita*
<i>Postcode</i>		
Canning	479	0.31%
Durack	245	0.13%
Forrest	2864	1.88%
O'Connor	1688	1.06%
Metropolitan	10789	0.56%

*population numbers based on 2016 Census data

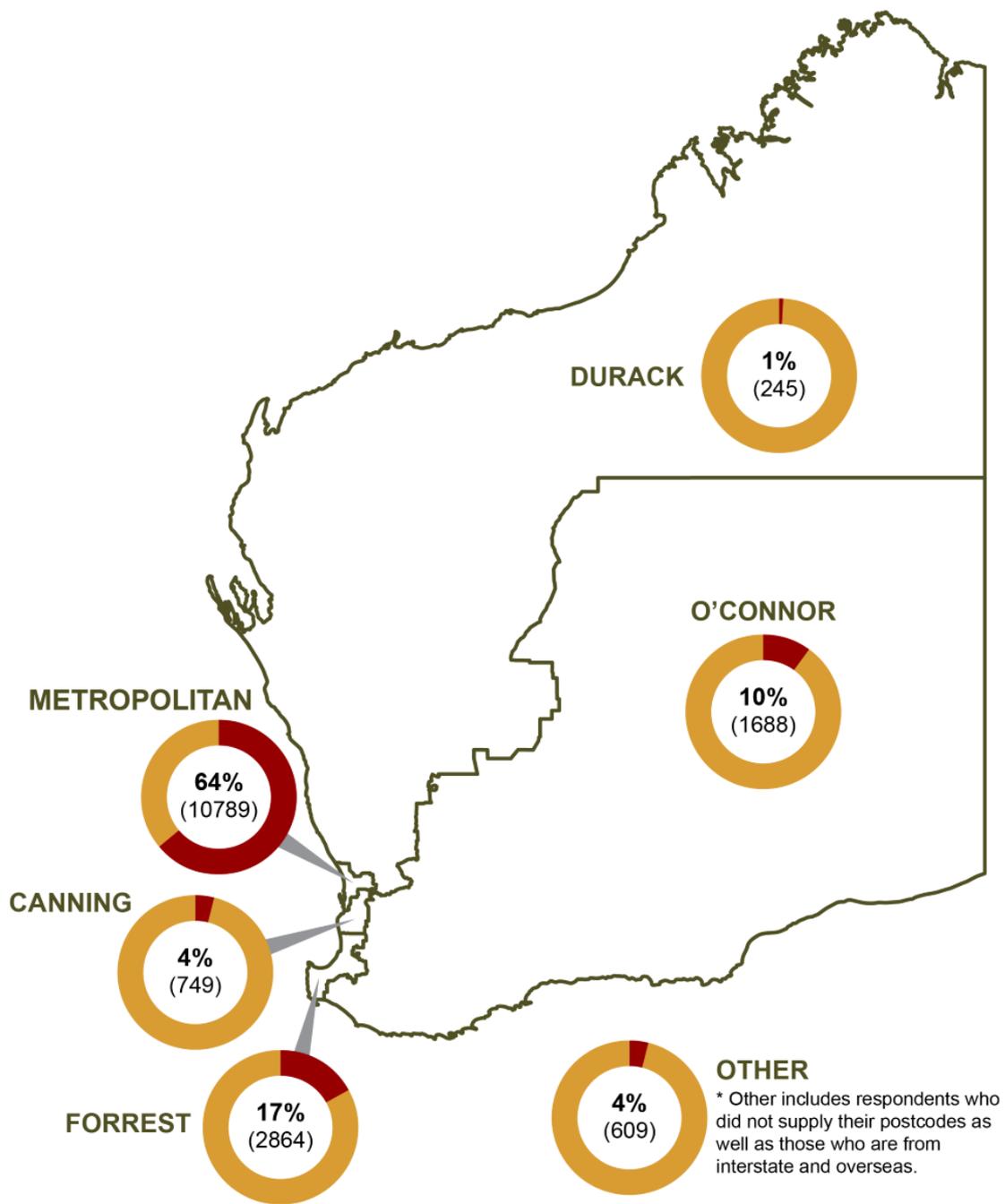


Figure 18: Responses based on Commonwealth electoral zones.

Conclusion

Results from the survey show that people care deeply about protecting the native forests of the south-west, which they say add to the quality of life in Perth and other regional areas. Most survey respondents (92%) interacted with the south-west native forests for personal purposes (mainly recreation). Respondents highly valued old growth forest areas threatened species and communities, and biodiversity in the south-west forests.

Recreation, tourism, and bee keeping were seen as activities that were most sustainable in the south-west forests, while mining, logging, and firewood collection were deemed most unsustainable. A majority of the respondents felt that the current management of several activities particularly mining and native timber harvesting would not be acceptable under future climate change scenarios.

Climate change was seen as a threat to the native south-west forests by a majority (93%) of respondents. The native forests of the south-west were seen as being important for biodiversity conservation, for threatened species and communities, and for carbon capture and storage by over 94% of all respondents. Having access to the native south-west forests was important for over 90% of respondents and about 85% felt that they need to be actively managed. Timber harvesting at current levels was acceptable to only 4% of all respondents with close to 90% of respondents saying that fewer areas of timber harvesting should be made available and almost three-quarters of all respondents feeling that no native timber harvesting should occur. 54% of respondents agreed or thought that maybe the south-west forests could play a role in generating carbon credits and suggested various means how this could be achieved.

Eco-tourism, educational and research activities, bee keeping, and cultural tourism specifically, Aboriginal cultural activities and appreciation were seen as sustainable activities. Many comments were made regarding the management of the forests to support a sustainable future, focussed on having less or no mining and native timber harvesting in the south-west forests. Fire management was also identified to be a priority for survey respondents who called for a change in this practice. There was a strong voice calling for consultation with Aboriginal elders on traditional management practices, particularly in relation to fire and forest health.