















Understanding Forest Management Issues

A Presentation based upon what was
presented to the Natural Resources Minister

Purpose of Presentation

- 1) For Information and Discussion

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Implications of the results, specifically for discussion with Tourism Minister

- outfitting issues
- resort development

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2) For Decision

Purpose of Presentation

1) For Information and Discussion

Implications of the results, specifically for discussion with Tourism Minister

- outfitting issues
- resort development

2) For Decision

Future direction, specifically gaining information representative of the Northern Peninsula and Clarenville region

Human Dimension Study Objectives

- Attitudes, beliefs, priorities toward forests and forest management
- Western: 14, 15, 16
- Central: 5, 8, 9, 10





Methodology

- Data collected from residents who were randomly selected proportional to population
- Telephone contact
- Mail-out questionnaire with 83 close-ended items

Response Rates

Central: n = 466 55%

Western: n = 429 52%

About the Sample

- Mainly males
- Western (61%)
- Central (71%)

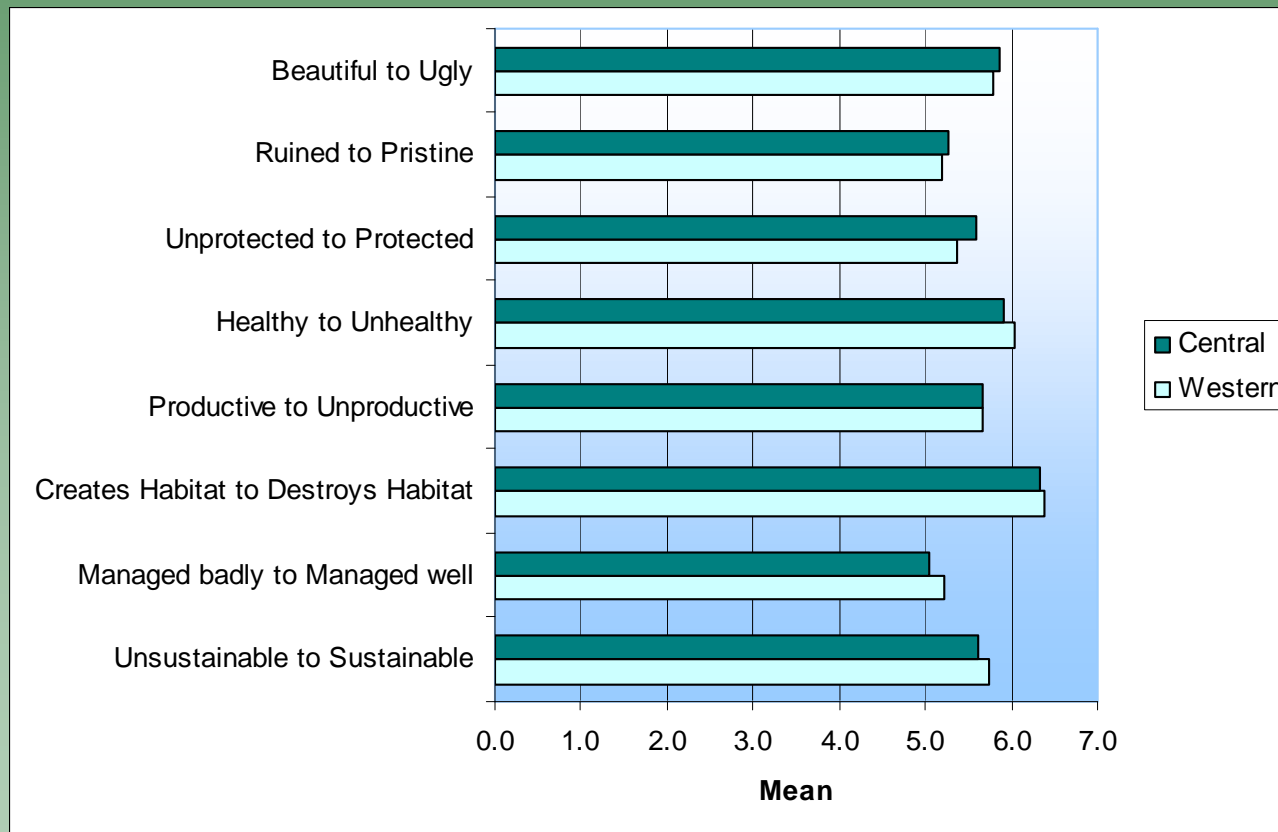
Income from Timber Activities

- Bonnell (2000) – 22% western
- Today 13% western
 15% central

Income from Non-timber

- Same as 2000
- No change – 10%

Current State of the Forests



Central versus Western

- No statistically significant differences
- Central residents tended to feel the forests were less sustainable, less managed well, more unproductive and more ugly than perceived by western residents
- Western residents tended to see the current state of forests as destroying habitat, unhealthy, less protected and more ruined than their central counterparts

Perceptions of Available Wood Supply

	The Island portion of the province still has plenty of forests.					Total
	Strongly disagree	Disagree	Neither	Agree	Strongly agree	
Western Region	61 15.1%	166 41.2%	63 15.6%	107 26.6%	6 1.5%	403 100.0%
Central Region	67 14.5%	216 46.9%	57 12.4%	112 24.3%	9 2.0%	461 100.0%
Total	128 14.8%	382 44.2%	120 13.9%	219 25.3%	15 1.7%	864 100.0%

Perceptions of Available Wood Supply

	Current forestry management is ensuring there will be adequate supplies of wood for future uses.					Total
	Strongly disagree	Disagree	Neither	Agree	Strongly agree	
Western Region	52 12.8%	147 36.2%	107 26.4%	93 22.9%	7 1.7%	406 100.0%
Central Region	49 10.6%	198 43.0%	93 20.2%	119 25.8%	2 .4%	461 100.0%
Total	101 11.6%	345 39.8%	200 23.1%	212 24.5%	9 1.0%	867 100.0%

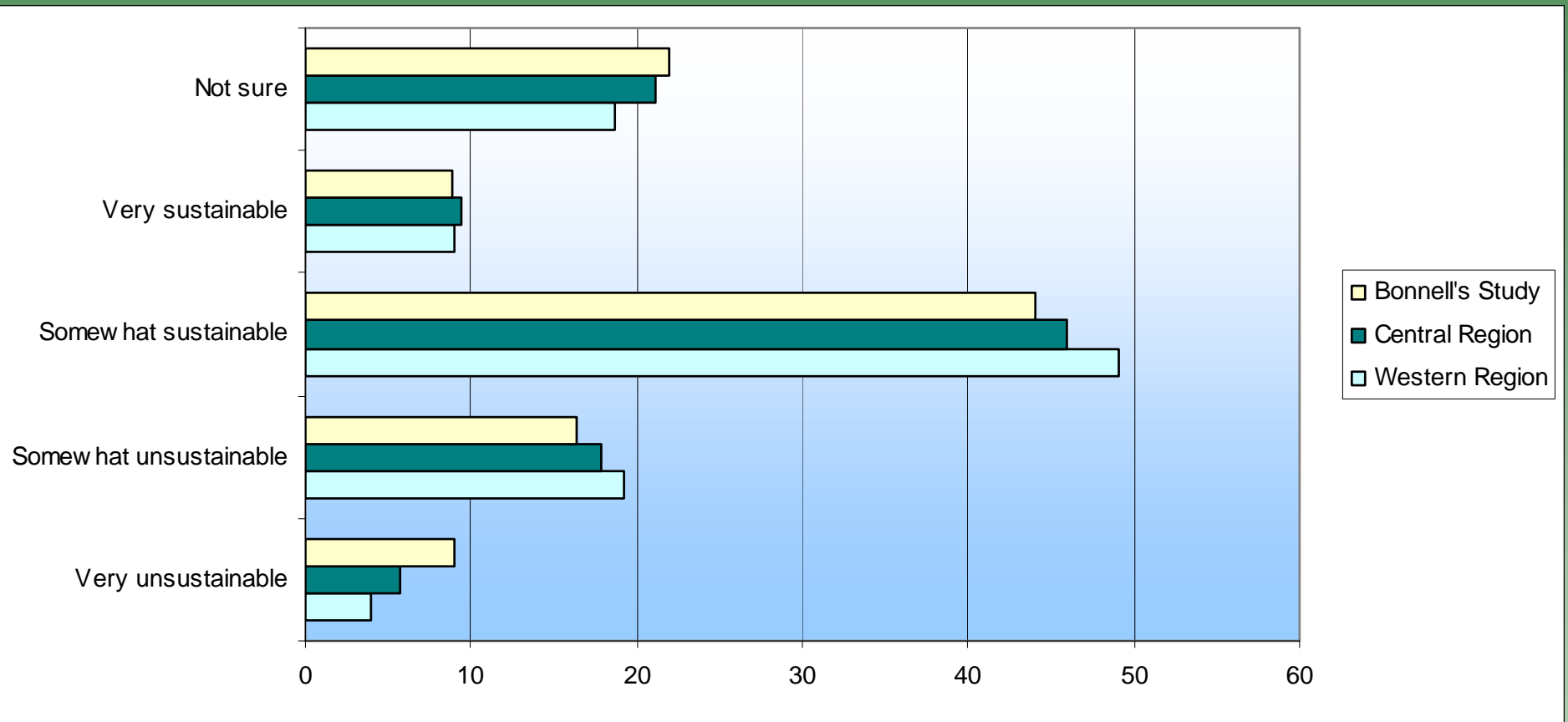
Perceptions of Available Wood Supply

	There is sufficient wood on the Island for all users including paper mills, sawmills, and domestic firewood cutters.					Total
	Strongly disagree	Disagree	Neither	Agree	Strongly agree	
Western Region	99 24.4%	177 43.6%	61 15.0%	62 15.3%	7 1.7%	406 100.0%
Central Region	89 19.3%	217 47.2%	67 14.6%	79 17.2%	8 1.7%	460 100.0%
Total	188 21.7%	394 45.5%	128 14.8%	141 16.3%	15 1.7%	866 100.0%

Changing Attitudes 2000 to 2006

- Bonnell (2000) found that 51% of western respondents felt there was insufficient wood
- Today, 68% of western residents hold this belief

Forest management on the Island is or is not sustainable



Clear-Cutting Issues

	Clear-cutting in the province has been directly responsible for increased flooding in areas.					Total
	Strongly disagree	Disagree	Neither	Agree	Strongly agree	
Western Region	9 2.1%	52 12.3%	96 22.7%	174 41.2%	91 21.6%	422 100.0%
Central Region	13 2.8%	72 15.7%	140 30.5%	176 38.3%	58 12.6%	459 100.0%
Total	22 2.5%	124 14.1%	236 26.8%	350 39.7%	149 16.9%	881 100.0%

Clear-Cutting Issues

	Clear-cutting in the province has led to an increase in silting of streams					Total
	Strongly disagree	Disagree	Neither	Agree	Strongly agree	
Western Region	7 1.7%	19 4.5%	95 22.5%	219 51.9%	82 19.4%	422 100.0%
Central Region	12 2.6%	32 7.0%	120 26.1%	232 50.4%	64 13.9%	460 100.0%
Total	19 2.2%	51 5.8%	215 24.4%	451 51.1%	146 16.6%	882 100.0%

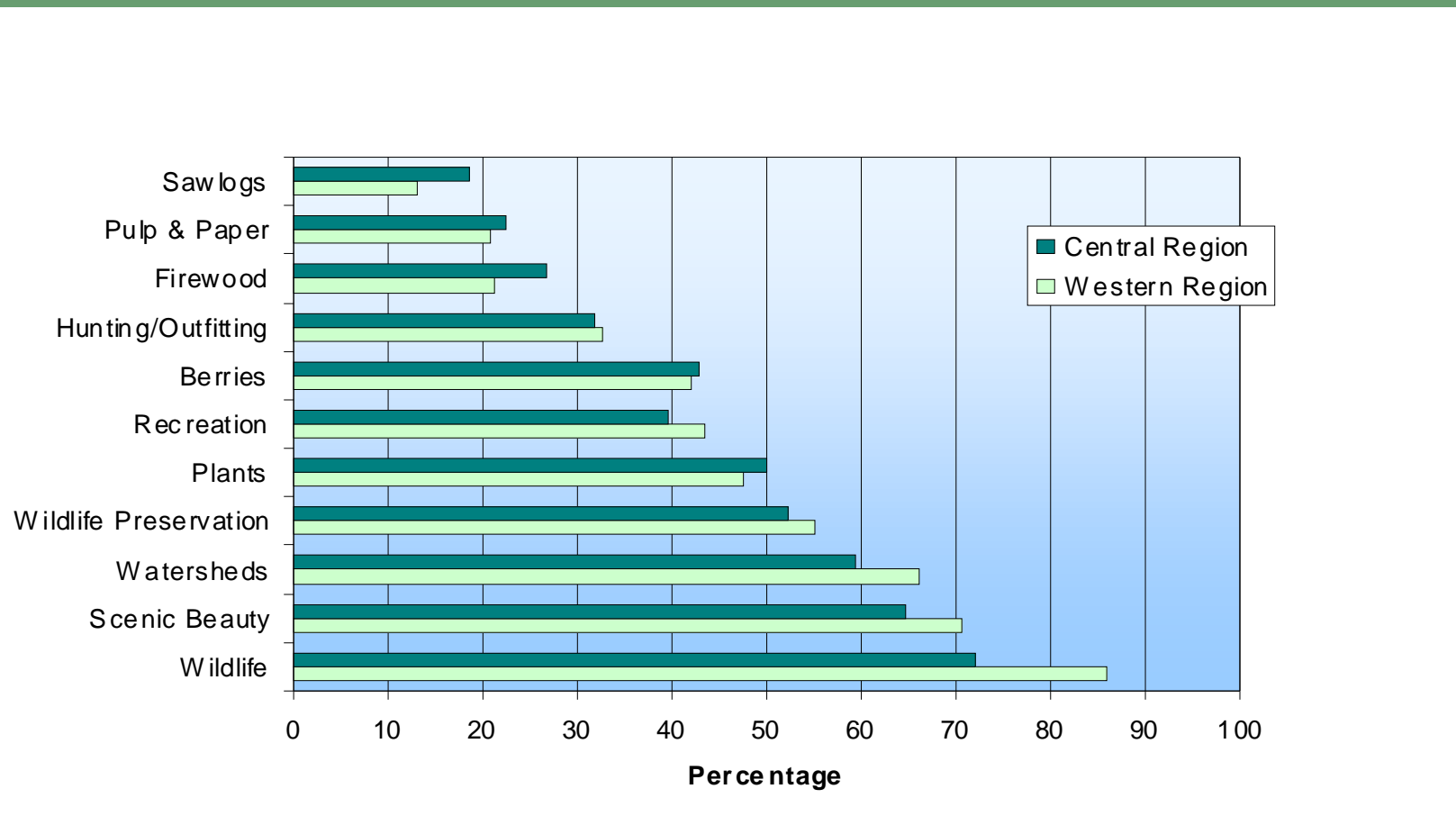
Comparison of mean scores between residents and those involved in non-timber activities across possible impacts of clear-cutting.

	NTAR	Residents	Significance
Clear-cutting in the province has been directly responsible for increased flooding in areas.	3.88	3.51	p=0.001
Clear-cutting in the province has led to an increase in silting of streams.	3.99	3.72	p=0.008

Comparison of mean scores between males and females across impacts of forestry practices.

	Females	Males	Significance
Clear-cutting in the province has been directly responsible for increased flooding in areas.	3.42	3.61	p=0.006
Clear-cutting in the province has led to an increase in silting of streams.	3.60	3.82	p=0.001
Domestic wood harvesting is resulting in habitat loss for wildlife.	3.04	2.68	p<0.001

Percentage of Responses by Region, Indicating 9 or 10 for Priorities for use of the Island's Forests



Comparison of mean scores between residents and those who derive income from non-timber activities across key values for the use of the Island's forest.

	NTAR	Residents	Significance
Wilderness preservation	9.00	8.28	p<0.001
Recreation	8.48	7.73	p=0.001
Plants	8.70	8.00	p<0.001
Wildlife	9.34	8.93	p=0.006
Firewood	7.45	6.84	p=0.015
Berries	8.18	7.60	p=0.027
Scenic beauty	9.11	8.66	p=0.007
Hunting/outfitting	7.92	7.33	p=0.019

It is more important to protect outfitters and the areas they need than to provide forest industry jobs.

	It is more important to protect outfitters and the areas they need than to provide forest industry jobs.					Total
	Strongly disagree	Disagree	Neither	Agree	Strongly agree	
Western Region	46 10.9%	201 47.6%	118 28.0%	51 12.1%	6 1.4%	422 100.0%
Central Region	65 14.2%	227 49.6%	98 21.4%	55 12.0%	13 2.8%	458 100.0%
Total	111 12.6%	428 48.6%	216 24.5%	106 12.0%	19 2.2%	880 100.0%

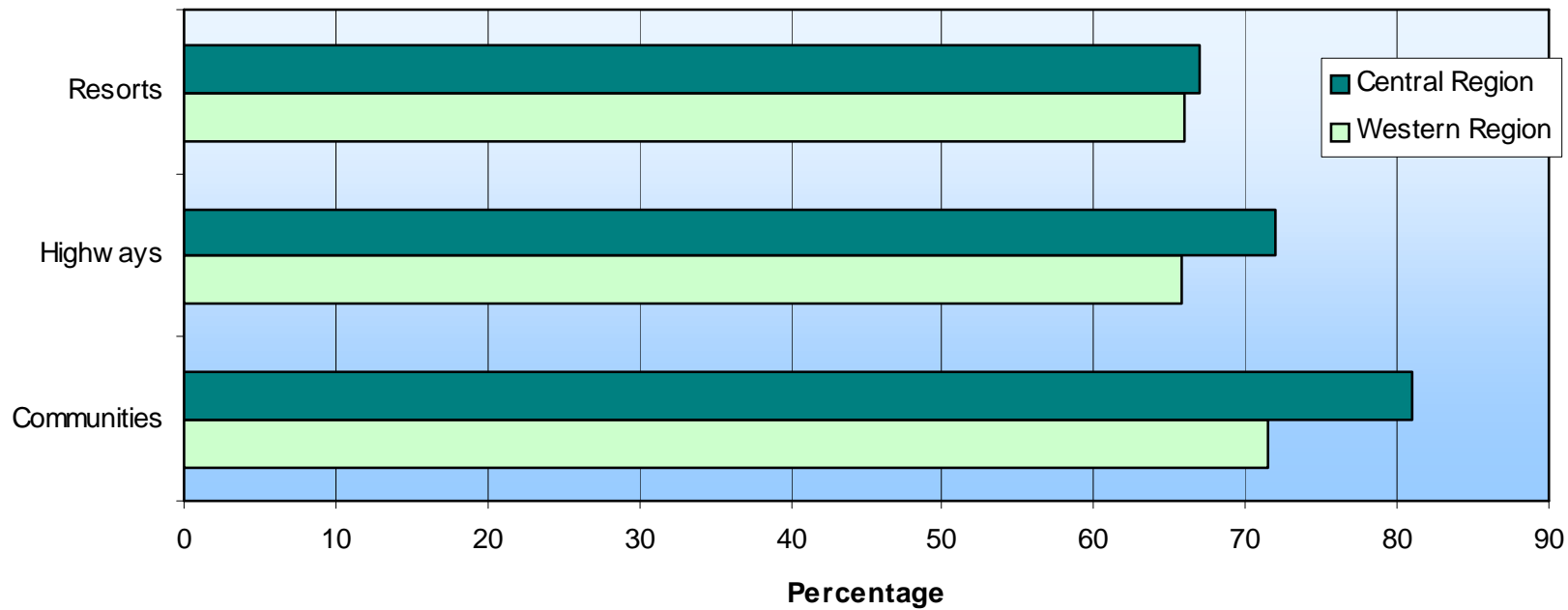


Forestry Jobs versus Wildlife Protection

	It is more important to protect wildlife than to provide forest jobs.					Total
	Strongly disagree	Disagree	Neither	Agree	Strongly agree	
Western Region	10 2.4%	77 18.3%	149 35.4%	141 33.5%	44 10.5%	421 100.0%
Central Region	9 2.0%	99 21.7%	180 39.5%	134 29.4%	34 7.5%	456 100.0%
Total	19 2.2%	176 20.1%	329 37.5%	275 31.4%	78 8.9%	877 100.0%

View-sheds and Cutting

Percentage of Disagreement with Cutting in Sight of:



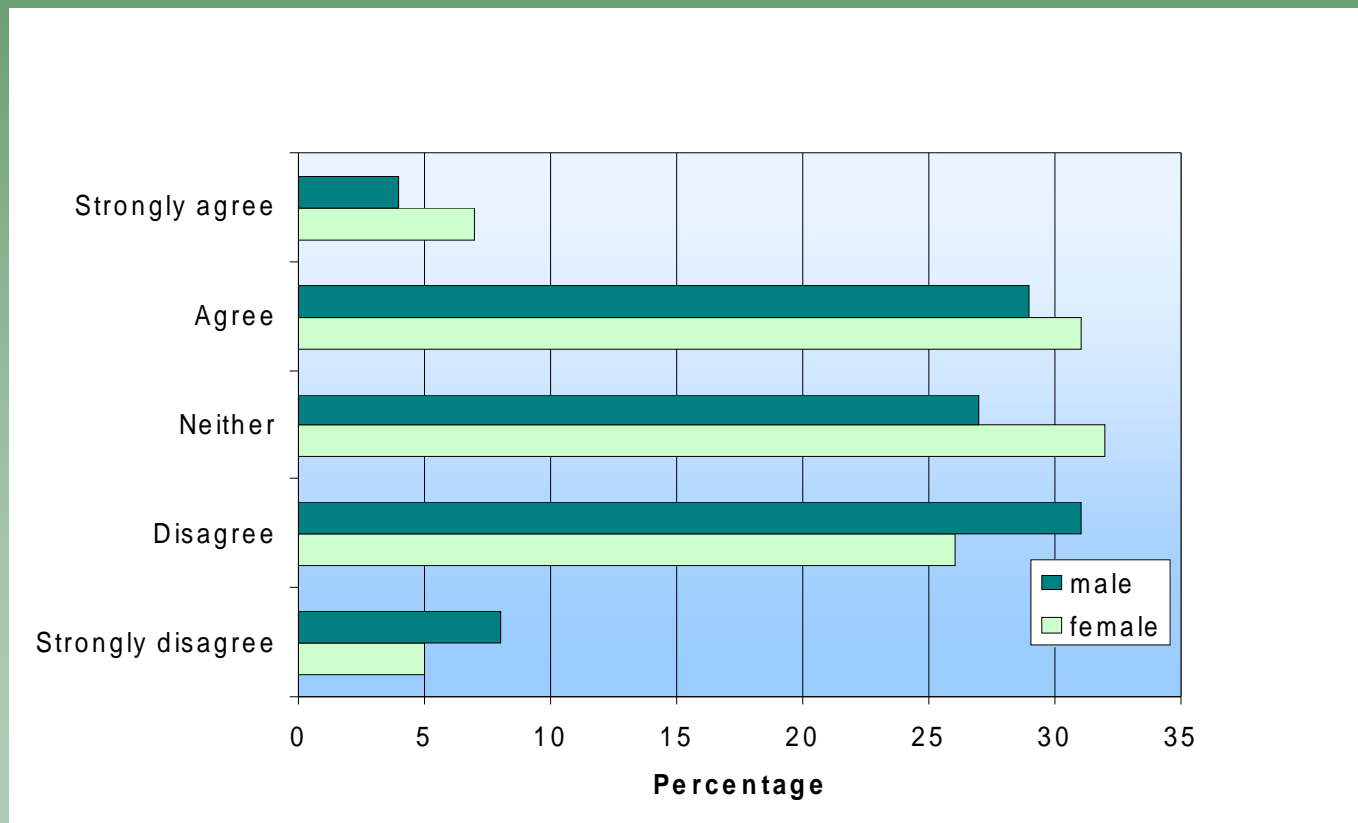
View-sheds and Jobs

	Forest companies should be allowed to cut areas in sight of resorts.					Total
	Strongly disagree	Disagree	Neither	Agree	Strongly agree	
Western Region	73 18.3%	189 47.4%	79 19.8%	52 13.0%	6 1.5%	399 100.0%
Central Region	67 14.9%	237 52.5%	97 21.5%	48 10.6%	2 .4%	451 100.0%
Total	140 16.5%	426 50.1%	176 20.7%	100 11.8%	8 .9%	850 100.0%

View-sheds and Jobs

	It is more important to cut trees and keep forest jobs on the Island than protect a view for resort residents.					Total
	Strongly disagree	Disagree	Neither	Agree	Strongly agree	
Western Region	31 7.8%	110 27.8%	124 31.4%	106 26.8%	24 6.1%	395 100.0%
Central Region	28 6.2%	138 30.5%	121 26.8%	146 32.3%	19 4.2%	452 100.0%
Total	59 7.0%	248 29.3%	245 28.9%	252 29.8%	43 5.1%	847 100.0%

It is more important to cut trees and keep forest jobs on the Island than protect a view for resort residents.



Comparison of mean scores between residents and those involved in timber activities across view-shed issues.

	TAP	Residents	Significance
Forest companies should be allowed to cut in sight of highways.	2.48	2.28	p=0.046
Forest companies should be allowed to cut in sight of resorts.	2.65	2.23	p<0.001
Forest companies should be allowed to cut in sight of communities.	2.39	2.06	p=0.002

Comparison of mean scores between residents and those involved in timber activities across outfitting issues.

	TAP	Residents	Significance
There is more money to be made in outfitting than forestry on the Island.	2.35	2.57	p=0.005
There are more jobs in the outfitting industry than in the forestry industry on the Island.	2.21	2.42	p=0.004
There are still plenty of wilderness areas left on the Island for the outfitting industry.	3.33	3.13	p=0.031
If the forestry industry needs more wood to protect jobs than tree cutting should be allowed to take place closer to outfitting camps.	2.90	2.61	p=0.001

Deriving Income from Timber

- Individuals deriving income from timber activities were significantly different in their strength of attitudes as compared to residents
 - Sustainability issues
 - Clear-cutting issues
 - Outfitting issues
- Individuals deriving income from timber activities more likely to believe pulp & paper industry

Comparison of mean scores between residents and non-timber activity residents across outfitting issues.

	NTAR	Residents	Significance
It is more important to protect outfitters and the areas they need than to provide forest industry jobs.	2.73	2.38	p=0.001
There should be at least a five km buffer of trees left around outfitting camps.	3.58	3.29	p=0.008
More effort should be put into providing recreational opportunities in forests than providing forest jobs from cutting the area.	3.29	2.95	p=0.001
There are still plenty of wildemess areas left on the Island for the outfitting industry.	2.90	3.19	p=0.008
It is more important to protect wildlife than to provide forest jobs.	3.55	3.22	p=0.004
There should be large buffers of trees left along rivers and streams.	4.44	4.19	p=0.004



There should be limits on the amount of wood that can be cut for domestic use.

	There should be limits on the amount of wood that can be cut for domestic use					Total
	Strongly disagree	Disagree	Neither	Agree	Strongly agree	
Western Region	26 6.2%	59 14.0%	53 12.6%	230 54.5%	54 12.8%	422 100.0%
Central Region	23 5.0%	76 16.6%	41 9.0%	258 56.3%	60 13.1%	458 100.0%
Total	49 5.6%	135 15.3%	94 10.7%	488 55.5%	114 13.0%	880 100.0%

There are not enough areas on the Island where you can go and cut trees for your own firewood

	There are not enough areas on the Island where you can go and cut trees for your own firewood.					Total
	Strongly disagree	Disagree	Neither	Agree	Strongly agree	
Western Region	14 3.5%	127 31.8%	120 30.1%	108 27.1%	30 7.5%	399 100.0%
Central Region	18 4.0%	144 31.9%	122 27.1%	131 29.0%	36 8.0%	451 100.0%
Total	32 3.8%	271 31.9%	242 28.5%	239 28.1%	66 7.8%	850 100.0%

Domestic wood harvesting is resulting in habitat loss for wildlife.

	Domestic wood harvesting is resulting in habitat loss for wildlife.					Total
	Strongly disagree	Disagree	Neither	Agree	Strongly agree	
Western Region	48 11.5%	146 34.8%	100 23.9%	97 23.2%	28 6.7%	419 100.0%
Central Region	48 10.4%	169 36.7%	90 19.6%	122 26.5%	31 6.7%	460 100.0%
Total	96 10.9%	315 35.8%	190 21.6%	219 24.9%	59 6.7%	879 100.0%

Domestic users cut areas close to rivers and streams that have been left by industry for buffer zones.

	Domestic users cut areas close to rivers and streams that have been left by industry for buffer zones.					Total
	Strongly disagree	Disagree	Neither	Agree	Strongly agree	
Western Region	24 5.7%	115 27.4%	156 37.1%	98 23.3%	27 6.4%	420 100.0%
Central Region	38 8.2%	130 28.2%	154 33.4%	110 23.9%	29 6.3%	461 100.0%
Total	62 7.0%	245 27.8%	310 35.2%	208 23.6%	56 6.4%	881 100.0%

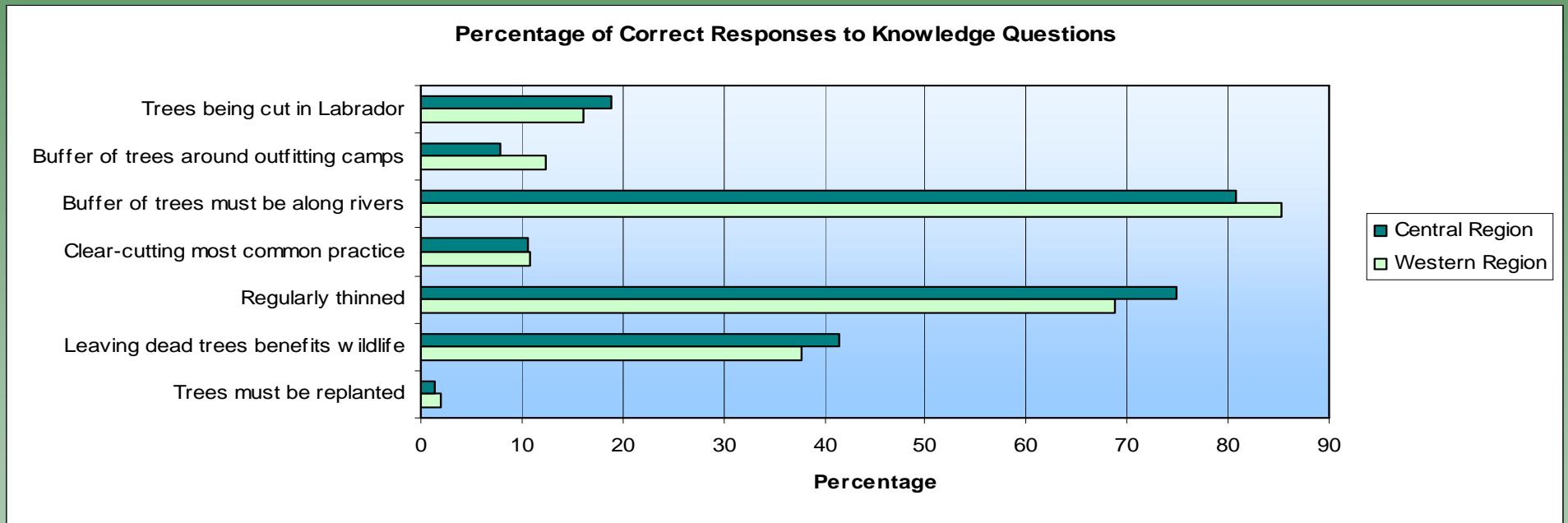
There should be better enforcement of domestic wood cutters.

	There should be better enforcement of domestic wood cutters.					Total
	Strongly disagree	Disagree	Neither	Agree	Strongly agree	
Western Region	16 3.8%	52 12.4%	71 16.9%	223 53.2%	57 13.6%	419 100.0%
Central Region	11 2.4%	77 16.7%	76 16.5%	227 49.3%	69 15.0%	460 100.0%
Total	27 3.1%	129 14.7%	147 16.7%	450 51.2%	126 14.3%	879 100.0%

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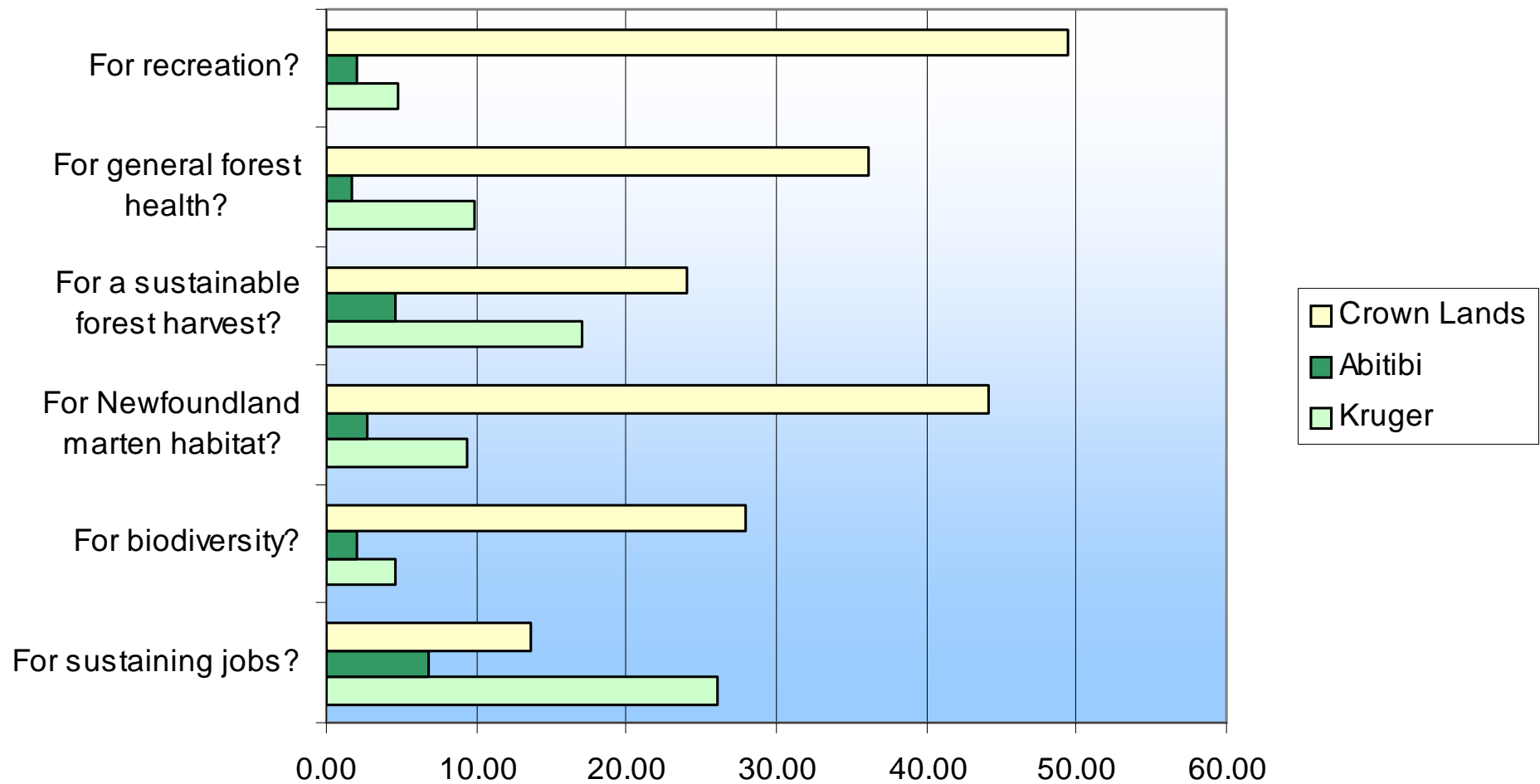
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Percentage of Correct Responses to Knowledge Questions



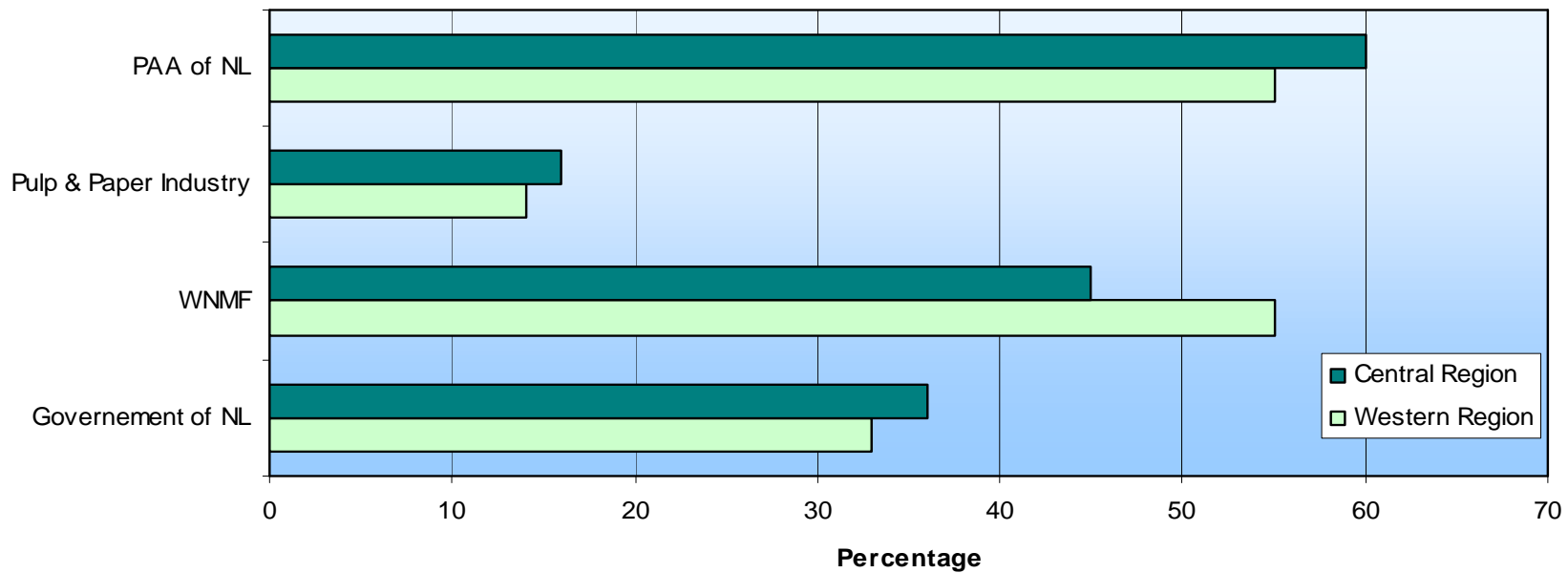
On whose lands is the forest best managed?

Western



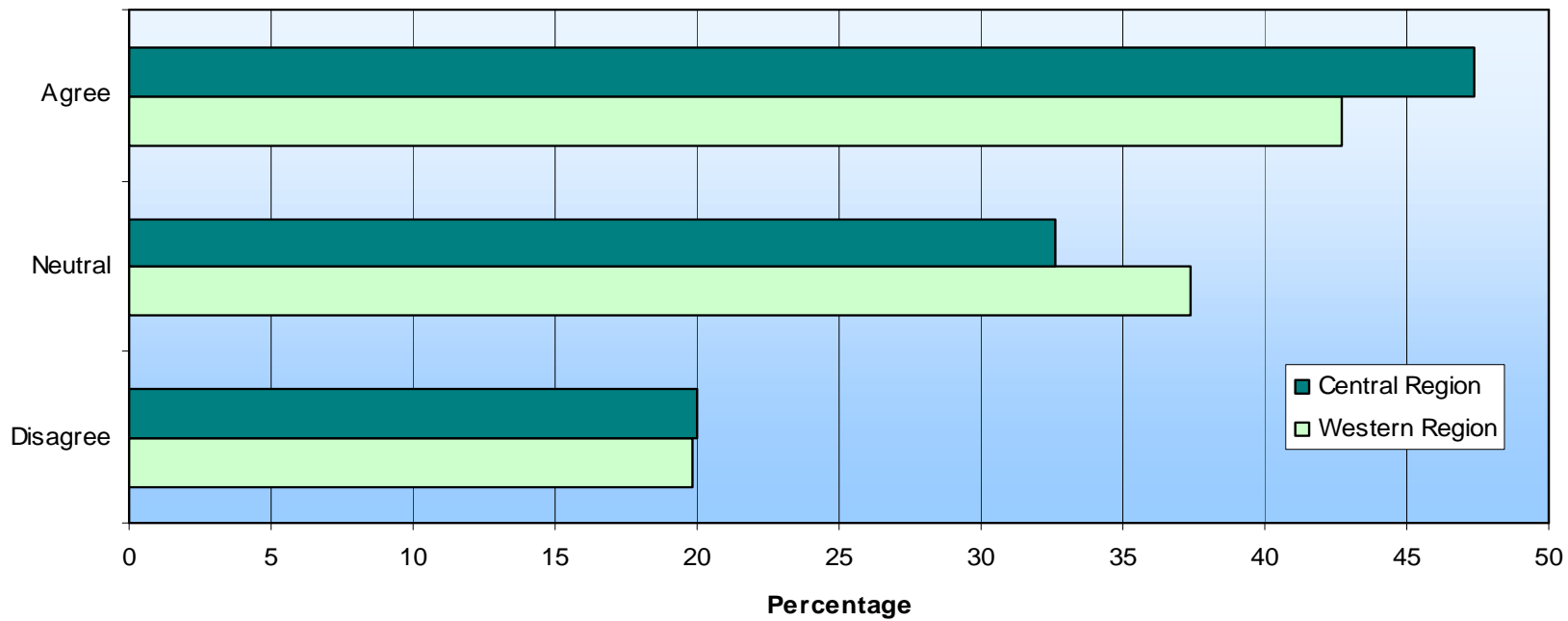
Perceived credibility of various interest groups involved in Forestry management issues

Percent of residents that would believe most or all



Present logging is too great to sustain the forest for other values and uses.


Present logging is too great to sustain the forest for other values and uses.



Communication

We are born with two ears and one mouth, so we should be listening at least twice as much as talking to the various interest groups and general public

Communication

To whom?  Target Audiences

- Non-timber vs timber related incomes
- Males vs Females
- Not as important – Central vs Western

Communication

About what?  Target Messages

- Low knowledge scores
- Outfitting issues
- Value persuasive messages
- Understand sensitivity of forestry jobs and domestic wood cutting

Communication

From Whom?  Target Messenger

- Understand behavioural conflicts
 - Credibility scores

Communication

Using what methods?



Target Medium

- Explore using focus groups

Next Human Dimensions Steps

- Offering other district managers useful information for decision-making
- Northern Peninsula, Clarendville area, Avalon peninsula

