

1 **From Productivism to Multi-functionality in the Gascoyne–Murchison Rangelands of**
2 **Western Australia.**

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8 **Running Title.** Land use transition in the Gascoyne-Murchison rangelands

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11

12 **Abstract.** A sustainability assessment of the Western Australian (WA) rangelands identified
13 a range of issues associated with regional economic decline typical of many marginal
14 rangeland regions in Australia. As part of a regional rejuvenation strategy, the WA state
15 government purchased selected pastoral lease properties for incorporation into the
16 conservation estate. It was intended as a means of land use transition from monofunctional
17 productivism to multi-functionality incorporating protection of significant rangeland
18 bioregions and development of tourism.

19 A one year project was conducted to assess the issues relating to this transition.
20 Archived information was obtained from government relating to the characteristics of the
21 lease properties at the time they were purchased. Site visits were undertaken to purchased
22 leases acquired by the government as well as neighbouring leases. During site visits,
23 interviews with pastoralists and purchased lease managers were conducted. A series of
24 facilitated community discussion groups in the region was held to ascertain the views of

25 landholders and managers, government representatives, indigenous interests and commercial
26 operators in the region.

27 This paper describes how the transition to a combination of protection and consumption
28 exchanged one set of problems for another. This was due partly to the intrinsic character of
29 the land, in terms of previous over grazing, isolation, large distances, and limited
30 infrastructure and services. More importantly, the top down approach to land transition failed
31 to allocate adequate management resources to replace those lost when the former pastoral
32 leaseholders left. The consequences of inadequate management included theft and rapid
33 degradation of assets, inadequate control of pests and weeds; inadequate fire prevention
34 management and poor communication between the government and other stakeholders over
35 management decisions. This paper discusses the dynamics of this WA rangeland transition
36 with reference to the multi-functional rural transition concept.

37

38 **Additional keywords:** Land use, rural transition, protection, tourism, management.

39

40 **Introduction**

41 This paper documents issues in the transitioning of land use from mono-functional
42 productivism to multifunctional conservation and consumption in remote rangeland areas.
43 Changing economic and social circumstances in many rangeland regions have resulted in a
44 decline in the viability of pastoralism as an economic activity (Holmes 1996; MacLeod and
45 McIvor 2006). Some underlying factors contributing to this decline include relatively low
46 productivity, unreliable climate, and complex multiple land use issues (Holmes and Knight
47 1994; Williams and Thomas 2005; Holmes 2006). In view of this, MacLeod and McIvor
48 (2006) contend there is an urgent need to implement sustainable resource management
49 regimes for the Australian rangelands in order to establish a balance between economic and

50 ecological imperatives. Change in land use practices and in the generation of new or more
51 diversified economic opportunities are considered necessary in such circumstances to bring
52 about regional recovery or even to ensure local economic and ecological survival (Parr 1999).

53 Public acknowledgement of the need for such changes has been evidenced by the state
54 government's purchase of several pastoral lease properties in the interior Gascoyne-
55 Murchison rangelands of Western Australia as part of a regional rejuvenation strategy. This
56 strategy identified several key issues threatening the Gascoyne-Murchison region, including a
57 decline in biodiversity and the need to broaden the hitherto productivist economic base (URS
58 2004). The acquisition of land was viewed by government as an opportunity to incorporate
59 important bioregions into the conservation estate and to develop tourism as a means of
60 revitalising a traditionally low profile and economically depressed region. Interestingly,
61 Holmes (2006) noted that the graziers in the Gascoyne-Murchison region were entrenched in
62 a narrowly productivist pastoralist paradigm thereby creating significant cultural resistance to
63 a shift to multi-functional land use. This paper presents a detailed consideration of the
64 government land purchase strategy in the Gascoyne-Murchison region. The purchase was
65 intended to diversify land use and thereby to improve local economic, social and
66 environmental fortunes, through biodiversity conservation and the facilitation of tourism.

67 Given the government's policy of change in land use to a more complex form, our frame
68 of reference for this study is Holmes' (2006) multifunctional rural transition concept. This
69 concept postulates a trend in rural land use shifting from 'mono-functional' productivist
70 activities (cropping and grazing) to a more complex and frequently multipurpose range of
71 uses (Holmes 2006). The multifunctional transition in rural areas is considered by Holmes
72 (2006) to be a product of shifts in societal values with greater emphasis now being placed on
73 sustainable resource management, biodiversity conservation and landscape protection and

74 indigenous land rights. Holmes identifies seven modes of land occupation based on varying
75 emphases and combinations of land uses (Table 1).

76

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78

79 While the agricultural productivist mode is included, the remaining six modes describe a
80 transition from a less viable ‘mono-functional’ and productivist form of land use to other
81 modes in which production is either combined with consumption and/or protection or is
82 absent altogether (Holmes 2006). While contested land uses do occur in areas with high
83 production values, Holmes noted that in remote Australia there is generally a spatial
84 separation between land which is optimal for production and that which is desired for
85 consumption. This reduces, to some extent, the likelihood of contestations between these
86 different modes of land use in remote regions. The government purchase of the pastoral
87 leases in the Gascoyne–Murchison region of WA was primarily for biodiversity conservation
88 which therefore represents a transition from productivism to the “Conservation occupance”
89 mode identified by Holmes (2006, p149) However, while nature conservation provided the
90 primary motivation for the resumption of these leases, the official acknowledgement of the
91 importance of these areas for indigenous uses and tourism reflects the complexities inherent
92 in the multifunctional rural transition framework.

93 According to Holmes and Knight (1994), the leasehold arrangements characteristic of
94 the rangelands afford the state greater influence in determining how land is used, as
95 compared to the freehold tenures of more densely settled regions. Lease conditions and
96 associated powers to resume land provide mechanisms whereby the state can readily
97 intervene in land use practices. However, state intervention does not always generate
98 desirable results. Holmes (2002) noted the example of pastoral lease subdivision. This

99 exercise was intended to encourage closer settlement and increase population density in
100 remote rangeland areas. That is, it was intended to intensify agricultural production rather
101 than facilitate a move to multifunctionality. This former policy unfortunately resulted in
102 unviably small properties and subsequent severe economic and environmental stress in
103 certain rangeland regions. Conversely, O’Grady (2004) argued that pastoralists have
104 historically practiced sustainable management of their leases owing to a need to adapt to the
105 harsh conditions. This meant balancing grazing with conservation of grassland ecology to
106 ensure an ongoing income out of necessity for survival. However, this stance belies the
107 documented environmental degradation and loss of productivity in the rangelands of the
108 Gascoyne-Murchison region of WA (Southern Rangelands Advisory Group 2009). The
109 rangelands include a substantial proportion of submarginal pastoral land that is increasingly
110 surplus to production requirements, yet even here there are still significant social, cultural,
111 political, institutional and financial barriers to transition (Holmes 2006). O’Grady’s (2004)
112 thesis, based primarily on the views of pastoralists, emphasised the view that state
113 intervention in pastoral lease management was usually misguided and unwelcome. A
114 separate survey of the pastoralists about the changes in land use in the Gascoyne-Murchison
115 demonstrated a lack of awareness about the connection between ecological management and
116 pastoral practices (URS 2004). Thus, these negative perceptions may be more a reflection of
117 past government policy and the entrenched productivist pastoralist mentality described by
118 Holmes (2006) rather than of any concern for effective land management and conservation.

119 The current strategy in the Gascoyne-Murchison region represents a fundamental shift in
120 government policy away from the traditional stance of productivism toward a version of
121 multifunctionality that includes tourism and conservation. Holmes (2006) identified tourism
122 as one diversification alternative based on the amenity associated with conservation and
123 protection of selected rangeland locations. Fargher et al (2003) stated that tourism in the

124 Australian rangelands is often perceived as an attractive alternative economic activity to
125 pastoralism. Woinarski and Fisher (2003) noted that tourism in the rangelands can generate
126 significantly greater economic returns than does pastoralism. This is evident in GDP figures
127 published for the mid 1990s when pastoralism represented 0.2% of Australian GDP while
128 rangeland tourism represented 0.4% and rangeland mining 2.6% (CIE 1997; Holmes 2002).
129 More recent figures revealed that mining production (AU\$1.34 billion) and tourism (AU\$172
130 million) were the two most valuable activities while agriculture (including a range of
131 activities as well as pastoralism) had significantly less value at AU\$62 million (Rangelands
132 Australia 2008). While grazing is the most geographically widespread activity, its GDP
133 contribution is comparatively small. To place this in perspective, at the beginning of the 20th
134 century rangeland pastoralism contributed approximately 18% of national GDP, though its
135 importance declined significantly thereafter. However, the considerable diversity of
136 environments, landscapes and amenities means that production, consumption and
137 conservation potentials can vary considerably across and even within rangeland regions, with
138 grazing capacity, natural beauty and ready access from large regional centres being important
139 variables in this regard (CIE 2000).

140 Carson and Taylor (2008) noted that rangeland areas with a diversity of natural and
141 cultural experiences are more likely to attract tourists and to benefit from tourism. The
142 benefits of successful tourism development for regional economies are well recognised
143 (Dwyer *et al.* 2004). In terms of tourism, however, the success of any form of transition
144 relies on specific characteristics that encourage and facilitate tourist visitation (Crouch and
145 Ritchie 1999). A region seeking to encourage tourism, and to receive its apparent benefits,
146 requires both a clearly defined point of entry and a selection of tourism focal points that
147 people want to access (Leiper 1990). This is especially so in those more isolated regions of
148 the Australian rangelands where access requires considerable effort and expense on the part

149 of the visitor. Establishing a tourism component in a local economy could be achieved
150 through promotion of its existing assets as distinctive and unique or, through building or
151 development of new places or experiences (Seaton 1999; Hsu *et al.* 2004). For example, the
152 unique biodiversity evident in rangeland regions might function as a focal point for tourism
153 (Woinarski and Fisher 2003) though in rangeland areas the unpredictable nature of their
154 appearance (e.g. wildflowers after rain) may present a challenge. Although a rangeland area
155 might have distinctive characteristics, remote regional locations frequently experience
156 difficulties in marketing, development and/or in motivating tourists to visit owing to their
157 limited resources, minimal tourism-related infrastructure and scant services (Hughes and
158 Macbeth 2005a). Small resident and business populations often also limit the pool of skills
159 and knowledge available for effective development of tourism. Ironically, these are the very
160 factors that form the basis for social and economic depression and motivate communities to
161 look to tourism as a saviour in the first place (Knowd 2001; Hughes and Macbeth 2005b)

162 Holmes' (2006, p155) discussion of the multifunctional rural transition concept points to
163 the potential for significant rural change in Australia's rangelands. This is because of both a
164 lack of "entrenched investment of human resources" and the leasehold nature of land tenure.
165 However, the extent of this potential may need to be tempered by his observation regarding
166 resistance to transition in the Gascoyne-Murchison rangelands owing to the determination of
167 many local lease holders to continue their pastoralist way of life. There are also a range of
168 other barriers to change relating to geography, infrastructure, management, politics and socio-
169 cultural issues. This paper presents some findings from a one year project focussed on
170 identifying the tourism potential of a group of Western Australian rangeland pastoral leases
171 purchased by the state government for the purposes of biodiversity conservation combined
172 with tourism (Smith *et al.* 2008). While the land was primarily purchased for biodiversity
173 conservation, development of tourism was perceived as a means of adding value to the

174 acquisitions and contributing to the local economy. This paper details the dynamics of this
175 transition process in terms of the issues and difficulties in transitioning land use from mono-
176 functional productivist to multifunctional protection and consumption in remote rangeland
177 areas.

178

179 **Regional Background**

180 The study area included the interior rangelands within the Gascoyne and Murchison regions
181 of Western Australia (Fig. 1). This area is characterised by a combination of expansive,
182 rugged isolated landscapes, distinctive geological formations and rich indigenous and
183 colonial heritage. The climate is generally arid to semi arid with, little rain and high average
184 temperatures and the study area is characterised by scrubby vegetation. The Gascoyne region
185 covers an area of 137,938 km² with a 2007 resident population of approximately 9,560
186 largely concentrated in the coastal areas. The interior is sparsely populated and experiences
187 greater extremes of temperature. The Murchison Region covers an area of 472,366 km² with
188 a resident population of approximately 51,000 close to three quarters of whom live in and
189 around the coastal regional centre of Geraldton. The remainder of the residential population
190 is located in various towns scattered along the coast and the better watered parts of the
191 interior. The coastal areas of the Murchison experience a mild Mediterranean climate while
192 the interior experiences semi arid to arid conditions with extremes of temperature and little
193 rainfall. The main economic activities of the region and their associated annual values are
194 summarised in Fig. 2. Although pastoral leases occupy the greatest land area in these
195 regions, grazing provides a relatively small contribution to the regional economies.

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200

201 *The GMS and pastoral lease purchases*

202 A sustainability assessment of the Western Australian rangeland regions between 1998 and
203 2005 identified a range of issues relating to the dominance of mono-functional productivist
204 land use. This assessment culminated in the Gascoyne-Murchison Strategy (GMS) that
205 recognised the need for biodiversity conservation and an expansion of the economic base of
206 the region among its other recommendations. This represents an official recognition of the
207 need for a transition to multifunctional land use. One outcome of the strategy was the
208 provision of funding for the state government conservation agency to purchase pastoral
209 leases. The WA Department of Environment and Conservation (DEC) purchased selected
210 land systems (18 whole properties and 19 part properties totalling 3,916,244 ha) across the
211 interior Gascoyne-Murchison regions from 1999 to 2004 (shown by the grey shading on Fig.
212 1). The primary purpose of this exercise was to establish a more comprehensive, adequate
213 and representative reserve system. In addition, tourism was viewed as a means of adding
214 value to the resumed properties and of contributing to the economic and social wellbeing of
215 local communities. A review of the Gascoyne-Murchison Strategy noted that, while the
216 purchases added significantly to biodiversity conservation estate, most of the leases sold to
217 DEC had poor land condition (URS 2004). The Gascoyne-Murchison pastoral lease
218 purchases and the shift from grazing to conservation were followed by an exodus of resident
219 pastoral lease managers and their families.

220

221 *Tourism Activity*

222 Tourism activity in the region grew with the sealing of the road from Geraldton to Carnarvon
223 in the 1960s. Tourists travelled mainly to the coast and to certain towns while some pastoral

224 stations were granted special leases to run station stays (O'Grady 2004). Currently, tourism is
225 still concentrated along the coast, particularly in the Kalbarri, Shark Bay and Ningaloo Reef
226 areas (Fig. 3). Statistics for the coastal areas indicate visitation rates of approximately
227 110,000 tourists annually while the inland regions were estimated to host about 4,000 to
228 6,000 per year. These are mostly Western Australian self drive tourists with visitation to the
229 inland regions being highly seasonal (Smith *et al.* 2008). Thus, the significance of tourism
230 demonstrated by the dollar values in Fig. 2 relate mainly to coastal localities, and not to
231 tourism to the inland regions. The concentration of visitors on the coast is a result of easier
232 road and air access, significantly more tourism related development, the desirability of
233 marine and coastal areas as tourism destinations and the presence of iconic focal points in
234 coastal regions (including Kalbarri, Ningaloo Reef, Monkey Mia and Coral Bay).

235

236 FIGURE 3 NEAR HERE

237

238 Apart from the expansive arid landscapes and the isolation, the primary focal points for
239 tourism in the Gascoyne interior consist of Mount Augustus (Burringurrah) and the Kennedy
240 Range (Fig. 1). The pastoral leases purchased in the Gascoyne are mainly clustered around
241 these two tourism focal points. Mount Augustus is 490 km east from the coastal regional
242 centre of Carnarvon and 360 km northwest from the interior centre of Meekatharra. The vast
243 majority of the access roads are unsealed and are subject to flooding and unpredictable
244 closures during rain events. Mount Augustus is essentially a large limestone monolith
245 abruptly projecting 717 m above a stony plain of arid shrub land. The rock is obscured
246 somewhat by the presence of soil and vegetation, giving the impression of a conventional
247 mountain. The Kennedy Range is a slightly more accessible attraction about 150 km east of
248 Carnarvon, near the hamlet of Gascoyne Junction. It is an eroded plateau extending for

249 roughly 195 km in a north south direction. The southern and eastern sides of the range have
250 eroded to form cliffs, rising to 100 m. These are dissected by steep-sided canyons. The top of
251 the range comprises an expansive plateau of dune fields sloping westward toward the coast.

252 The Murchison pastoral lease purchases were clustered around areas of ecological
253 significance as a means of improving the representation of rangeland bioregions in the
254 conservation estate. There are no large, distinctive geological landmarks as with the
255 Gascoyne property clusters. The Murchison's interior presents a relatively more agrarian
256 landscape with year round sealed road access and a number of small population centres.
257 While roads on the pastoral leases are unsealed, access for tourists is relatively easier.
258 Primary points of tourism focus in the interior rangelands include seasonal wildflowers and
259 numerous indigenous and colonial cultural heritage sites. The interior region also has
260 geographical features of interest such as salt lakes, granite outcrops, ridges and breakaways.
261 Much of the area is covered by mining leases that take precedence over pastoral lease status
262 should mining prove to be feasible.

263 As part of the Gascoyne-Murchison Strategy, and in an effort to build on tourism in the
264 interior, a number of self drive touring routes were developed. These include recommended
265 itineraries in published material as well as formally signposted and interpreted self drive
266 routes. The self drive routes commence in regional coastal centres and were designed to
267 encourage tourism to move away from the popular coastal areas and experience the interior
268 rangeland regions. Recommended itineraries include routes marked on maps for viewing
269 wildflowers. The Outback Pathways self drive trails represent an example of a specifically
270 marked and signposted drive trail network across the Gascoyne-Murchison regions (Fig. 3).
271 They include a number of drive trails relating to different aspects of regional heritage
272 including the 'Miners Pathway', 'Wool Wagon Pathway' and 'Kingsford Smith Pathway'.
273 Despite the difficulties in evaluation and the absence of detailed data relating to their impacts

274 on tourism numbers, such drive trails seem to be a popular focus for development of tourism
275 in regional areas (Hardy 2003).

276

277 **Methods**

278 This paper details the dynamics of the rural transition process in terms of the issues and
279 difficulties in transitioning from mono-functional productivist to multifunctional protection
280 and consumption land uses in remote rangeland areas. Information was gathered using
281 various means including the examination of archival records, interviews with station
282 managers and community workshops in the regions. Initial information was gathered from
283 files in the DEC Perth central office archives relating to the purchase of the properties. Any
284 information indicating infrastructure, biophysical characteristics and social or cultural values
285 was photocopied and filed. The archived information provided a foundation for a tourism
286 related asset inventory of the stations. Further information was sourced from a review of
287 documents relating to the stations, including DEC reports, WA Museum records and Tourism
288 WA visitor data. Information was also gathered through discussions with DEC headquarters
289 and regional staff and a review of the tourism literature. Subsequently, a draft inventory table
290 was constructed detailing the likely tourism assets on each property. A review of the probable
291 market demand for tourism on the rangelands and the types of experiences that such tourists
292 may seek was based on existing tourism data for Western Australia. This information formed
293 the basis for the stakeholder workshop discussions.

294 Community workshops were held in the regional centres of Carnarvon and Geraldton
295 between May and August 2005. The workshops focused on the pastoral properties, their
296 management and potential for tourism. Two stakeholder meetings were conducted at each
297 centre, one involving primarily non-Aboriginal representatives and a second exclusively for
298 Aboriginal representatives. Attendees were invited through the Gascoyne and Murchison

299 Development Commissions and included local and state government representatives from
300 various tourism and land management related agencies, tourism operators and pastoral lease
301 holders. The mainly non-Aboriginal workshops had about 20 attendees at each of the
302 Geraldton and Carnarvon meetings. Exclusively Aboriginal stakeholders' meetings were
303 conducted for cultural reasons, to ensure that the indigenous representatives felt able to
304 express their opinions freely. Invitees were identified and invited with the assistance of the
305 Yamatji Land and Sea Council. Native title claimants, traditional owners and spokespersons
306 associated with purchased pastoral lease areas attended the meetings. About 10 people
307 attended each of the Aboriginal meetings in Carnarvon and Geraldton. The meetings were not
308 intended as a forum for discussion of specific details regarding tourism development
309 opportunities. Rather, they were a forum for the various interested parties to gather and share
310 general ideas in relation to tourism and the management of the purchased rangeland
311 properties. Workshops were facilitated by the researchers.

312 The researchers visited the resumed property leases to interview a total of seven resident
313 managers and to gain a first hand view of lease land condition and layout. New managers of
314 DEC purchased properties and incumbent managers of pastoral properties were interviewed
315 on a conversational basis regarding their opinions on the potential for tourism in the region
316 and on current land management issues. Occupied leases purchased in full by DEC were
317 characteristically supervised by managers engaged after resumption of the lease. Where fully
318 purchased leases were clustered, the single manager engaged for the whole cluster was
319 interviewed (for example the cluster of Lochada, Karara and Warriedar pastoral leases were
320 managed by a single couple occupying Karara). Where part (and hence unoccupied) leases
321 were purchased, the managers of the neighbouring unpurchased components of the leases
322 were interviewed. These tended to be the incumbent pastoral lease managers, often from
323 families resident on the land for several generations.

324 During trips to the regions, information was collected at the DEC offices in Carnarvon
325 and Geraldton primarily relating to the location and layout of the stations. This included maps
326 of geology, topography and vegetation as well as sites identified either by DEC officers or
327 station managers that had particular scenic or other tourism related values. Properties in the
328 Gascoyne region were visited in conjunction with the stakeholder workshops in Carnarvon.
329 Properties in the Murchison were visited in conjunction with the workshops in Geraldton. A
330 three day driving tour out of Carnarvon was undertaken during which Gascoyne region
331 properties adjacent to the Kennedy Ranges and Mount Augustus were visited. On site
332 interviews were held with the single person engaged to manage Cobra station near Mount
333 Augustus as well as the then manager of the Mount Augustus 'Resort'. Three current
334 pastoral lease holders adjacent to part lease purchased near the Kennedy Range were
335 interviewed during this trip. The Murchison Properties were visited on a drive trip over five
336 days including the Lochada, Warriedar, Karara group and the Yuin, Pimbee, Narloo group.
337 This included interviews with one manager engaged by DEC to manage the Lochada group
338 and one incumbent pastoral lease holder adjacent to Narloo. Tours of the stations were
339 conducted independently with managers providing some information and 'mud maps' as a
340 guide to points of interest. The Lochada group managers offered a guided tour of the
341 properties including points of interest and significant cultural sites. Doolgunna and
342 Mooloogool, near Meekatharra, were visited separately with a guided tour of the points of
343 interest being provided by the DEC officer responsible for management of these properties.

344 Extensive notes from workshops, discussions with managers and site visits were made
345 together with a comprehensive digital image record. Site visits provided data that were not
346 available in archival or current records or literature. All information was collated and
347 manually analysed, extracting common themes and issues across the properties and regions.
348 This paper focuses on the issues raised concerning the management of those remote and

349 dispersed purchased pastoral leases which were intended to undergo transition from a pastoral
350 occupance mode to a conservation occupance mode with tourism related activities.

351

352 **Findings**

353 As a means of driving multifunctional rural transition, the purchase of the Gascoyne–
354 Murchison pastoral lease properties represents a top down approach. The purchased
355 rangeland properties are ideally in the process of conversion from marginal pastoralism to a
356 combination of mainly protection and tourism consumption centred land uses. This
357 correlates with Holmes’ (2006) transition from ‘Marginalised Pastoral Occupance’ to the
358 ‘Conservation Occupance’ mode. The primary drivers of the transition were the decline in
359 the agricultural production value of the land and an increased awareness by regional and state
360 governments of ecological protection values in need of better representation in the
361 conservation estate. A consumption-based economic imperative was also present based on
362 the development of tourism on the purchased properties as a means of economic
363 diversification for the region. Interestingly, a survey of the Gascoyne-Murchison rangeland
364 community indicated most attention was focussed on related GMS programs aimed at
365 improving efficiency of production (URS 2004). There seemed to be relatively less local
366 community attention paid to the protection and tourism consumption elements of the strategy.
367 This contrasts with the description of driving forces for transition to this mode that include a
368 growing awareness of the need for conservation and a demand for experiences in ‘pristine’
369 landscapes (Holmes 2006, p149). This suggests a gap between the objectives of the top down
370 transition process and the bottom up community perceptions of issues in the region.

371 With this in mind, a major finding of this study was that this shift from production to a
372 combination of protection and consumption has arguably exchanged one set of problems for
373 another. Declining returns on pastoralism, combined with declining productivity of the land,

374 prompted the government sponsored transition in an attempt to alleviate the problems
375 associated with mono-functionality (Holmes and Knight 1994; Williams and Thomas 2005;
376 Holmes 2006; MacLeod and McIvor 2006). While mono-functional productivism on these
377 properties seemed to face insurmountable problems, the multifunctional rural transition has
378 seen new issues and problems arise and these will now need to be overcome if the
379 multifunctional transition is to succeed. The following sections describe and discuss the
380 main issues that emerged from the community workshops, the interviews with stakeholders
381 and the site visits.

382

383 *Remoteness and management*

384 Holmes (2006) noted that transition to the Conservation Occupancy Mode was driven by an
385 awareness of environmental stresses and endangered ecosystems that required management
386 for their remediation and protection respectively. With reference to the decline in land
387 condition, the Southern Rangelands Pastoral Advisory Group report (2009) noted a trend in
388 the rangelands toward a reduced pastoralists' management presence on larger parcels of land.
389 They considered that this was contributing to problems with effective management in relation
390 to fences, fire, weeds and pests. Indeed, the primary purpose of the government land
391 acquisition was to improve the representation of rangelands in the conservation estate and to
392 protect significant bioregions (URS 2004; Smith *et al.* 2008). The subsequent pastoral lease
393 resumptions resulted in DEC assuming direct management responsibility for a large, remote
394 and fragmented area of land even though the department had limited budgets, staff and
395 resources. This issue of management was exacerbated by the departure of many of the
396 former lease holders who had previously been engaged in pastoralism on the properties. So,
397 while this mode of multi-functional rural transition may have been driven by a recognition of
398 the need for land protection, there appears to have been a gap between the resources required

399 and the resources assigned to facilitate the transition of the Gascoyne-Murchison rangelands.
400 Thus there is an irony in the purchase intended to improve land condition resulting in a
401 decline in management effectiveness due to the failure to replace the management capacity
402 that was lost when the pastoralists sold back their leases and left.

403 Observations during visits to properties revealed some of the consequences of
404 inadequate management presence such as asset theft, damage and degradation. Facilities and
405 equipment abandoned on some properties were often stolen if not sold or relocated to
406 homesteads with a DEC management presence. One manager commented that an entire
407 machine shed had “disappeared” from one of the properties. Theft of this item would have
408 required considerable time and effort. However, the size of the properties and their
409 associated isolation, combined with minimal management presence, indirectly facilitated the
410 theft. The harsh environmental conditions also took their toll. Some facilities, such as
411 homesteads and exposed equipment rapidly deteriorated over several months simply through
412 lack of tenants to conduct daily maintenance. Thus the purchase of the leases resulted in
413 difficulties in managing the maintenance of assets and this was indicative of broader
414 management issues.

415 The information gathered during this study complements a survey of neighbouring
416 lessees conducted by DEC in 2006 (DEC 2007). Less than half of those who responded were
417 satisfied overall with DEC as a neighbour. Those surveyed in the rangeland regions were
418 significantly less positive than those in other regions such as the southwest
419 (Pastoral Lands Board 2008). The responses indicated a range of management problems and
420 concerns associated with the reduced management presence resulting from the acquisition of
421 former pastoral leases by DEC. As revealed by the researchers’ site visits, the main issues
422 included a lack of maintenance of infrastructure, but also fire management, fence upkeep,
423 control of weeds and control of animal pests. As discussed later in this paper, the DEC

424 survey also highlighted difficulties with effective communication between DEC and its
425 neighbours (WA Department of Environment and Conservation 2007).

426 Thus, while the land acquisition was intended as part of a transition to a conservation
427 occupance mode of land use, the government purchase of these rangeland properties resulted
428 in a decline in management capacity and in subsequent reduced capacity for effective land
429 management. Remoteness and reduced management resources often meant that problems,
430 such as wild dogs, weeds and fire management, were not restricted to DEC owned properties
431 but spilled over into neighbouring pastoral leases. This appears to add support to the
432 comments of Holmes (2002) and O’Grady (2004) in relation to the inefficiencies of state
433 management where limited resources, large distances and isolation are in play. However, it
434 counters Holmes’ (2006, p155) comment that the land acquisition and use transition approach
435 in the Gascoyne-Murchison region represents a shift away from unsustainable productivism
436 toward sustainable multifunctional outcomes. Rather, it demonstrates the difficulties in
437 central management of rapid land use transition dispersed over large remote geographical
438 areas with insufficient allocation of resources to replace the former mode of land use.

439

440 *Community Engagement*

441 From the DEC management perspective, the mix of interest groups connected with these
442 rangeland properties presented considerable challenges. Communication of management
443 issues or decisions to the relevant stakeholders proved to be a complex and time consuming
444 task, which was further inhibited by the limited staff and resources locally available to DEC.
445 Comments throughout the community workshops underlined the need for clear lines of
446 communication between various government departments, representative organisations and
447 individuals at both the informal and formal levels. Difficulties with communication were also
448 evident in the ‘DEC Neighbour’ survey (2007). This perhaps is of particular importance to

449 the Aboriginal stakeholders who are primarily interested in access to traditional country and
450 cultural involvement in many aspects of management decision making. Problems with
451 communication between DEC as managers and the other stakeholders (indigenous,
452 neighbouring property holders) have caused tensions. A significant example occurred in
453 relation to mass bore closures. After purchasing the leases, DEC adopted a policy of closing
454 most bores in order to control feral goat numbers. It was noted in one stakeholders' meeting
455 that some of the local inhabitants were unaware of DEC's bore closure policy until they
456 discovered that the nearest bore had been closed when they were attempting to access water
457 after a vehicle breakdown in an isolated location on one of the purchased properties. This
458 represents a significant safety issue where potentially vital resources for survival become no
459 longer available without notice. This example illustrates the difficulties in managing land use
460 changes in large and remote areas with limited resources and between multiple interest
461 groups. It also demonstrates the importance of ensuring that the community is aware and
462 supportive of any land use changes being made on such a large scale.

463 The resumption of these properties and their eventual conversion from Crown leasehold
464 to conservation reserve significantly increases their public accessibility. Access to Crown
465 leasehold land, beyond public roads, is at the pastoral lease holder's discretion. As on
466 privately owned land, permission is required to access the land for any reason. The purchase
467 of the properties and their eventual shift to the conservation estate has placed the land in the
468 public domain under the management of DEC. While this creates management challenges, it
469 also has attracted the interest of traditional owners wanting access to the land for cultural
470 practices and having an interest in joint management. This circumstance demonstrates a
471 positive aspect of government driven multifunctional transition. Land once 'locked up' as
472 mono-functional crown leasehold for the primary use of pastoralists has been moved into the
473 public domain. Consequently, although there may be a socio-cultural cost in terms of the loss

474 of pastoralist lifestyles, the primary motivations of conservation and tourism also present
475 opportunities for rekindled cultural practices and associated social benefits (Jones *et al.*
476 2007).

477

478 *Tourism development*

479 Holmes (2006, p149) noted that the transition to a Conservation Occupance mode of land use
480 could tap into “increased demand” for “pristine” nature based and ecotourism experiences.
481 The local combination of expansive landscapes, distinctive geological formations and
482 indigenous and colonial heritage can combine to form a unique tourism product. The
483 uniqueness of the outback and the distinctive experiences it can offer are seen as two factors
484 that can function to create an attractive tourism package for adventure travellers (Carson and
485 Taylor 2008). Tourism can tap into these resources and translate them into local economic
486 and social benefits (Dwyer *et al.* 2004). That is, tourists visiting a region for its scenic and
487 cultural values can potentially bring revenue to the region in the form of local expenditure on
488 fuel, accommodation and food among other things. Follow-on benefits can also include
489 employment opportunities and the strengthening of cultural and social identity (Hughes and
490 Macbeth 2005*b*; Knowd 2001). However, given the difficulties experienced with basic land
491 management in the Gascoyne Murchison region, any plans for the development of tourism
492 add another layer of complexity.

493 Holmes (2006) noted that a core attribute associated with rangeland land use transition in
494 relation to tourism is a lack of public and private infrastructure. This observation was in line
495 with the researchers’ observation of the inland Gascoyne-Murchison area. Feedback from the
496 community workshops and interviews also highlighted the lack of tourism oriented
497 infrastructure and services. Perhaps of most significance is the lack of quality
498 accommodation across most of these rangeland properties, coupled with their isolation and

499 the high expense of construction and development. While existing infrastructure may be
500 adequate in terms of providing a rustic outback experience, provision of a range of
501 accommodation options, including higher end, well appointed facilities is more likely to
502 attract more mainstream tourists (Hughes and Macbeth 2005*b*). For the inland Gascoyne-
503 Murchison region, this requires significant investment in planning, management and
504 development. Development of tourism infrastructure and responsible management of
505 campers and other visitors in often rough and arid environments is required both for the
506 safety of visitors and the minimisation of environmental impacts (Hall 1995; Brown *et al.*
507 2006). Unfortunately, the remoteness of the region means that there is a high capital cost for
508 improvement of any of the properties while the extreme environmental conditions result in
509 high maintenance costs. Similarly, the isolation means that provision of services of all types
510 will also come at a higher cost to the tourist relative to the quality of the service received. In
511 addition, many of the properties are covered by mining exploration licenses. These licenses
512 take precedence over all other tenures such that some properties (such as Kadji Kadji) are
513 exposed to the possibility of mining activity. This generates an uncertainty of tenure that can
514 discourage investment in tourism business and infrastructure. Without significant investment,
515 it is unlikely that the region will be able to obtain significant economic and social benefits
516 from tourism.

517 Coupled with this, some managers contracted by DEC to maintain properties were
518 neither willing nor able to manage tourism activities in addition to their basic property
519 management duties. This was a function of the amount of work required to maintain large
520 lease areas as well as of the skill sets of the current on site managers. There is also a reported
521 high turnover of caretakers meaning that the establishment and development of tourism
522 services is made more difficult owing to a lack of consistency and corporate memory.
523 Employment of designated tourism managers would help to ensure a quality experience for

524 visitors. However, DEC is primarily mandated to conserve ecological areas and to minimise
525 any impacts thereupon. The agency is not a tourism development organisation and ultimately
526 does not have the resources to function both as a tourism operator on the rangeland properties
527 - beyond the provision of camping facilities, access and a limited management presence - and
528 as an environmental conservation manager. This demonstrates the challenges inherent in a
529 multifunctional land use transition where the different uses require both specialised skills and
530 a considerable input of time, capital and effort. It also raises the question of the most
531 appropriate scale at which different development trajectories
532 (production/consumption/protection) can be operationalised in the rangelands. It would seem
533 that a top down approach to multifunctional transition on a broad, regional scale presents
534 significant challenges. Ideally, significant changes in land use in a regional community
535 require ongoing community support to facilitate such a transition and to ensure the viability
536 of the diversified land functions (Howell 1987; Blank 1989; Hall 1995). This appears
537 difficult to achieve in the Gascoyne and Murchison regions where there is local resistance to
538 government intervention (O'Grady 2004) combined with inadequate management input and a
539 reported high turn over of caretakers on the purchased properties.

540

541 **Conclusion**

542 Holmes noted that the transition from marginalised pastoral occupance to protection is
543 impeded by financial, institutional, political and cultural barriers, and that this resistance is
544 characteristically strengthened by the continuing identification of landholders with their
545 present lifestyles. This study provides an example where pastoralists have willingly given up
546 their lifestyle through selling their leases to the government thus actively facilitating a land
547 use transition to protection. This voluntary resumption of land in return for remuneration
548 demonstrates a lowering of the barriers to change in terms of finance, lifestyle, culture and

549 politics to which Holmes referred. However, this voluntary resumption of land has resulted
550 in a failure of government to provide adequate management resources to replace those lost
551 with the exit of the pastoralists. Consequently, some of the key characteristics of the land and
552 the region (remoteness, poor land condition, lack of infrastructure and services, large
553 distances) that resulted in a decline in the viability of pastoralism are equally problematic for
554 the conservation occupance mode. The problems with land condition appeared to have been
555 compounded by the exodus of the pastoral lease holders and the subsequent diminution of a
556 management presence and experienced human resources on these properties in the absence of
557 appropriate government action.

558 The isolation of the rangeland properties purchased by DEC has minimised the contested
559 land use issues present in other more populated regions. This is due to the lack of large
560 population centres in the interior regions, the low annual number of tourists and a sparse
561 population dominated by pastoralists. The driving force for transition related primarily to the
562 degradation of land condition, decline in market returns for pastoralists and the subsequent
563 loss of the productive value of the land. These issues and the symptoms of social and
564 economic decline have been the focus of much scientific and economic research, in relation
565 to Australian rural areas (Holmes 2006). Ultimately, the Gascoyne and Murchison
566 pastoralists accepted an offer of purchase from the government as a means of ‘escaping’ from
567 this downward spiral of rural decline. In this sense, the transition was not instigated by a
568 contestation over space but rather through mutual agreement.

569 As we noted above, the change to a conservation occupance mode of land use appears to
570 have exchanged one set of problems for another. Both sets of problems have their origins in
571 the core characteristics of the Western Australian rangelands but they have been exacerbated
572 by the inadequate replacement of management resources that were lost when pastoralists left
573 the land. These scattered and remote wilderness properties do present opportunities for the

574 conservation of unique land and ecosystem types and for tourism. However, they also
575 present significant management problems due to lack of resources, infrastructure and
576 difficulty of access. When the land was managed for pastoralist production, each property
577 had a dedicated management presence and the pastoralists had a strong sense of ownership of
578 their land. The removal of this management presence has resulted in a rapid degradation of
579 existing infrastructure owing to vandalism, theft and the harsh environmental conditions. It
580 seems that, at the time of purchase, this transition to multifunctional rural land use exchanged
581 a lack of success in production with a decline in the essential component of management
582 presence on the land, namely human occupation. Currently, therefore, the symptom of land
583 degradation continues but for very different reasons.

584 As is the case with protection, this rangeland example highlights issues relating to
585 difficulties in transitioning from productivism to tourism as a consumptive use of land. In
586 this instance, the purchase of the land by a government conservation agency with limited
587 resources for tourism management and a primary focus on conservation of ecosystems is a
588 further complicating factor. While a remote region can be promoted as a tourism destination,
589 it is the management of tourists and their activities in those areas that is of primary
590 importance from a protected area management perspective (Hall 1995). Given that DEC
591 lacks the capacity to manage these large properties and tourists simultaneously, any increased
592 visitation may bring value in terms of direct revenue from local expenditure and social
593 awareness, but this could be at the expense of land conservation objectives.

594 Overall, the rangelands are now being valorised by a wider public and for a wider range
595 of reasons, most notably by governments, specialists and environmental agencies for
596 biodiversity conservation purposes (and possibly even for transactions in any future carbon
597 economy) and by a wider public seeking a wilderness experience. But, just as inappropriate
598 pastoral practices formerly had the potential to damage these fragile rangeland environments

599 and landscapes, so too do inappropriate or inadequate conservation measures and tourism
600 development today. Both these activities require long term investment and active human
601 involvement to prevent environmental degradation on the one hand and possible harm to
602 tourists themselves on the other. This study has demonstrated that the diminution of the
603 productivist human presence is only part of the process of a multifunctional rural transition.
604 For this process to reach a successful and sustainable end point, the partial abandonment of
605 the inland Gascoyne and Murchison resulting from the transition to Conservation Occupance
606 must now be complemented by adequate human and infrastructural strategies to capitalise on
607 the new and different values which the government and, it is to be hoped, sections of the
608 wider community now perceive that it possesses.

609

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614

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705

706

707 **Captions for Figs**

708

709 **Fig. 1.** Gascoyne – Murchison Region showing purchased leases in grey (adapted from
710 Dept. of Environment and Conservation 2007).

711

712 **Fig. 2.** Gross values of main economic activities in the Gascoyne and Murchison regions
713 in 2008 (Adapted from Dept. of Local Government and Regional Development
714 2008).

715

716 **Fig. 3.** Outback Pathways map with approximate locations of pastoral leases purchased
717 by DEC (adapted from Midwest Development Commission 2005).