

BAB V

PENUTUP

A. Kesimpulan

Kesimpulan hasil penelitian mengenai profil sensitivitas sosial ekologis dan *trade-off* antara produktivitas dengan keberlanjutan lahan petani kayu manis di Kabupaten Kerinci adalah kondisi petani kayu manis tidak bersifat homogen, tetapi memiliki variasi berdasarkan tingkat *exposure*, *sensitivity*, *adaptive capacity*, produktivitas, dan keberlanjutan lahan. Perbedaan tersebut menunjukkan bahwa setiap rumah tangga petani memiliki kemampuan yang berbeda dalam menghadapi tekanan sosial ekonomi dan ekologis dalam kegiatan usaha tani kayu manis. Penelitian ini menunjukkan bahwa peningkatan produktivitas tidak dapat hanya dilihat dari aspek ekonomi, tetapi perlu dikaji bersama dengan kemampuan adaptasi petani dan keberlanjutan sumber daya lahan. Secara lebih spesifik, penelitian ini menyimpulkan bahwa;

Pertama, berdasarkan hasil pengukuran dimensi pembentuk sensitivitas sosial-ekologis, tingkat *exposure*, *sensitivity*, dan *adaptive capacity* petani kayu manis di Kabupaten Kerinci menunjukkan variasi antarresponden. Nilai rata-rata indeks *exposure* sebesar 0,484 menunjukkan bahwa petani menghadapi tingkat tekanan eksternal pada kategori sedang. Tekanan tersebut terutama berkaitan dengan perubahan kondisi iklim, fluktuasi harga, peningkatan biaya produksi, serta risiko lingkungan seperti banjir dan longsor. Sementara itu, tingkat sensitivitas petani menunjukkan adanya perbedaan kemampuan dalam menerima dampak tekanan tersebut, baik dari aspek sosial ekonomi maupun ekologis. Perbedaan sensitivitas dipengaruhi oleh kondisi ketergantungan terhadap pendapatan kayu manis, akses modal, akses pasar, kondisi lahan, serta kemampuan pengelolaan kebun. Adapun nilai rata-rata *adaptive capacity* sebesar 0,454 menunjukkan bahwa kemampuan adaptasi petani berada pada tingkat sedang. Kondisi ini menggambarkan bahwa sebagian petani telah memiliki kemampuan dalam merespons perubahan melalui pengalaman bertani, akses informasi, diversifikasi pendapatan, kelembagaan petani, dan praktik konservasi. Namun sebagian lainnya masih menghadapi keterbatasan sumber daya adaptasi. Dengan demikian, dimensi

exposure, *sensitivity*, dan *adaptive capacity* membentuk variasi profil sensitivitas sosial-ekologis petani kayu manis di Kabupaten Kerinci.

Kedua, hasil analisis kluster menunjukkan bahwa petani kayu manis di Kabupaten Kerinci dapat dikelompokkan menjadi tiga profil utama berdasarkan kombinasi indikator sosial-ekologis, produktivitas, dan keberlanjutan lahan. Profil pertama adalah Produktif-Adaptif dan Berkelanjutan yang terdiri dari 156 petani (41,82%). Kelompok ini memiliki karakteristik *exposure* rendah (0,42), sensitivitas rendah (0,38), *adaptive capacity* tinggi (0,74), produktivitas tinggi (0,76), dan keberlanjutan lahan tinggi (0,78). Kondisi tersebut menunjukkan bahwa kelompok ini mampu mencapai keseimbangan antara tujuan ekonomi dan ekologis melalui kemampuan adaptasi yang lebih baik, pengelolaan kebun yang efektif, serta penerapan praktik budidaya yang mendukung keberlanjutan. Profil kedua adalah Rentan Sosial-Ekologis yang terdiri dari 87 petani (23,32%). Kelompok ini memiliki tingkat *exposure* tinggi (0,68), sensitivitas tinggi (0,71), *adaptive capacity* rendah (0,32), produktivitas sedang (0,61), dan keberlanjutan lahan rendah (0,36). Kondisi tersebut menunjukkan bahwa kelompok ini menghadapi tekanan terbesar karena keterbatasan kemampuan dalam merespons perubahan sosial-ekonomi maupun ekologis. Profil ketiga adalah Stabil Ekologis tetapi Produktivitas Terbatas yang terdiri dari 130 petani (34,85%) dengan karakteristik *exposure* sebesar 0,55, sensitivitas 0,56, *adaptive capacity* 0,58, produktivitas 0,39, dan keberlanjutan lahan 0,69. Kelompok ini menunjukkan bahwa kemampuan menjaga kondisi ekologis belum sepenuhnya diikuti dengan peningkatan produktivitas ekonomi.

Hasil uji perbedaan antarprofil memperkuat bahwa kelompok petani yang terbentuk memiliki karakteristik yang berbeda secara nyata. Uji Kruskal-Wallis menunjukkan terdapat perbedaan signifikan produktivitas fisik antarprofil dengan nilai $H = 56,482$ dan signifikansi $0,000 (<0,05)$. Profil Produktif-Adaptif memiliki produktivitas fisik tertinggi dengan median sebesar 1.850 kg/ha, dibandingkan Profil Rentan Ganda sebesar 1.120 kg/ha dan Profil Stabil Ekologis sebesar 980 kg/ha. Selain itu, terdapat perbedaan signifikan produktivitas ekonomi antarprofil dengan nilai $H = 61,735$ dan signifikansi $0,000 (<0,05)$. Profil Produktif-Adaptif menunjukkan kemampuan ekonomi terbaik karena memiliki efisiensi produksi dan

kemampuan pengelolaan usaha tani yang lebih baik. Perbedaan juga ditemukan pada aspek keberlanjutan lahan dengan nilai $H = 72,816$ dan signifikansi $0,000 (<0,05)$, dimana Profil Produktif-Adaptif memiliki indeks keberlanjutan tertinggi (0,78) sedangkan Profil Rentan Sosial-Ekologis memiliki keberlanjutan terendah (0,36). Hasil tersebut menunjukkan bahwa profil sensitivitas sosial-ekologis memiliki hubungan nyata terhadap capaian produktivitas dan keberlanjutan usaha tani kayu manis.

Ketiga, hasil analisis *trade-off* menunjukkan bahwa hubungan antara produktivitas dan keberlanjutan lahan petani kayu manis bersifat positif, tetapi belum sepenuhnya kuat. Hasil korelasi Spearman menunjukkan nilai koefisien sebesar $\rho = 0,284$ dengan signifikansi $0,000 (<0,05)$, yang menunjukkan bahwa peningkatan produktivitas cenderung diikuti oleh peningkatan keberlanjutan lahan, meskipun hubungan tersebut masih berada pada tingkat rendah hingga sedang. Berdasarkan analisis kuadran menggunakan nilai median produktivitas sebesar 0,285 dan median keberlanjutan lahan sebesar 0,474, ditemukan empat kategori *trade-off*. Kategori Produktif-Berkelanjutan ($TO=1$) menjadi kelompok terbesar dengan jumlah 148 petani (39,68%), menunjukkan bahwa sebagian petani mampu mencapai produktivitas tinggi sekaligus mempertahankan keberlanjutan lahan. Kategori Produktif tetapi Rentan Ekologis ($TO=2$) terdiri dari 71 petani (19,03%), yang menunjukkan adanya risiko bahwa peningkatan produksi belum sepenuhnya didukung oleh pengelolaan ekologis yang baik. Kategori Ekologis Baik tetapi Produktivitas Rendah ($TO=3$) terdiri dari 84 petani (22,52%), yang menunjukkan bahwa sebagian petani telah menjaga kondisi lingkungan tetapi belum mampu mengoptimalkan manfaat ekonomi kebun. Sementara itu, kategori Rentan Ganda ($TO=4$) terdiri dari 70 petani (18,77%), yang menunjukkan kondisi paling rentan karena menghadapi keterbatasan produktivitas sekaligus rendahnya keberlanjutan lahan.

Berdasarkan distribusi *trade-off* tersebut, prioritas pengembangan produktivitas berkelanjutan perlu diarahkan pada peningkatan kapasitas adaptif petani, penguatan kelembagaan, diversifikasi sumber pendapatan, serta penerapan praktik konservasi lahan. Profil Produktif-Adaptif dapat dijadikan model

pengembangan karena menunjukkan bahwa produktivitas tinggi dapat dicapai tanpa mengorbankan keberlanjutan ekologis. Sebaliknya, Profil Rentan Sosial ekologis menjadi kelompok prioritas intervensi karena memiliki tekanan sosial ekonomi dan ekologis yang tinggi. Oleh karena itu, strategi pembangunan usaha tani kayu manis di Kabupaten Kerinci perlu menggunakan pendekatan berbasis profil petani, bukan pendekatan yang seragam, agar peningkatan produktivitas dapat berjalan sejalan dengan prinsip keberlanjutan ekonomi, sosial, dan ekologis.

B. Saran

Berdasarkan hasil penelitian, terdapat beberapa saran yang dapat diberikan baik dalam pengembangan ilmu pengetahuan maupun penerapan kebijakan pembangunan pertanian berkelanjutan. Secara teoritis dan praktis, penelitian menyatakan beberapa saran, yaitu;

Secara teoritis, penelitian sensitivitas sosial ekologis petani perlu mengintegrasikan pendekatan yang lebih dinamis melalui data longitudinal. Penelitian ini telah menunjukkan bahwa kondisi petani tidak bersifat homogen dan dapat dibedakan berdasarkan kombinasi *exposure*, *sensitivity*, *adaptive capacity*, produktivitas, dan keberlanjutan lahan. Namun, perubahan kondisi petani dalam menghadapi perubahan iklim, fluktuasi harga, perubahan teknologi, dan dinamika pasar belum dapat diamati secara temporal. Oleh karena itu, penelitian lanjutan dapat menggunakan pendekatan *panel data* atau pengamatan berkala untuk mengetahui perubahan profil petani dari waktu ke waktu, termasuk proses perubahan petani dari kelompok rentan menuju kelompok adaptif. Pendekatan tersebut akan memperkuat pengembangan teori ekonomi pembangunan Islam, ekonomi lingkungan, dan sistem sosial ekologis dengan melihat keberlanjutan bukan hanya sebagai kondisi akhir, tetapi sebagai proses adaptasi yang terus berkembang. Penelitian berikutnya juga disarankan untuk memperluas model analisis dengan memasukkan aspek kelembagaan dan nilai ekonomi syariah secara lebih mendalam. Hasil penelitian menunjukkan bahwa kapasitas adaptif menjadi faktor penting dalam membedakan profil petani. Oleh karena itu, penelitian selanjutnya dapat mengkaji secara lebih spesifik peran kelompok tani, koperasi, lembaga pembiayaan syariah, akses pasar berbasis rantai nilai halal, serta

mekanisme distribusi manfaat ekonomi dalam meningkatkan ketahanan petani. Kajian tersebut dapat memperkuat hubungan antara produktivitas, keberlanjutan lingkungan, dan prinsip ekonomi Islam seperti amanah, keadilan, kemaslahatan, serta pencegahan kerusakan lingkungan dalam pengelolaan sumber daya pertanian.

Secara praktis, pemerintah daerah Kabupaten Kerinci disarankan untuk menggunakan hasil pemetaan profil sensitivitas sosial-ekologis sebagai dasar penyusunan kebijakan yang berbasis karakteristik kelompok petani. Pendekatan kebijakan tidak sebaiknya dilakukan secara seragam karena hasil penelitian menunjukkan adanya tiga kelompok utama petani dengan tingkat kerentanan dan kemampuan adaptasi yang berbeda. Kelompok petani rentan sosial-ekologis perlu menjadi prioritas intervensi melalui program peningkatan kapasitas adaptif, seperti pelatihan budidaya berkelanjutan, akses pembiayaan usaha tani, peningkatan akses informasi harga, serta penguatan kelembagaan pemasaran. Program tersebut diperlukan karena kelompok ini memiliki tingkat *exposure* dan sensitivitas yang tinggi serta kemampuan adaptasi yang relatif rendah.

Bagi kelompok petani yang memiliki kondisi ekologis baik tetapi produktivitas masih rendah, pemerintah daerah dan penyuluh pertanian disarankan untuk memberikan program peningkatan produktivitas berbasis keberlanjutan. Program dapat diarahkan pada peningkatan kualitas budidaya, pemanfaatan teknologi tepat guna, pengolahan pascapanen, peningkatan kualitas produk, serta penguatan akses pasar. Pendekatan ini penting agar peningkatan produktivitas tidak dilakukan melalui eksploitasi lahan, tetapi melalui peningkatan efisiensi produksi dan pengelolaan sumber daya yang lebih baik. Adapun bagi kelompok petani produktif-adaptif, kebijakan dapat diarahkan pada pengembangan sebagai model praktik terbaik (*best practice*) dalam pengelolaan kebun kayu manis berkelanjutan. Pemerintah daerah, kelompok tani, dan lembaga terkait dapat mendorong pengembangan sistem agroforestri, sertifikasi keberlanjutan, serta insentif ekonomi bagi petani yang mampu menjaga produktivitas sekaligus mempertahankan fungsi ekologis lahan. Strategi tersebut sejalan dengan prinsip ekonomi syariah yang menempatkan sumber daya alam sebagai amanah yang harus dimanfaatkan secara produktif tanpa menyebabkan kerusakan bagi generasi mendatang.

Selain itu, penyuluh pertanian dan kelompok tani disarankan untuk melakukan pendampingan berbasis kebutuhan kelompok petani. Petani dengan risiko erosi dan degradasi lahan perlu mendapatkan pendampingan konservasi tanah dan air, seperti peningkatan tutupan vegetasi, pengelolaan tanaman pendamping, serta penerapan sistem agroforestri. Petani dengan keterbatasan modal perlu diarahkan pada akses pembiayaan produktif yang sesuai dengan prinsip syariah, sedangkan petani dengan keterbatasan pemasaran perlu diperkuat melalui kelembagaan kolektif seperti koperasi atau kelompok pemasaran bersama.



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