Envisioning the future for southwestern Ethiopia

Egeree kibba lixa Itoophiyaa agarsiisuu

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A book by *The Sustainable Landscapes Group* with contributions by local experts

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Kitaaba *Garee Qoranno Itti Fufiinsa Teessuma Lafaa fi Naanno (landscape sustainability)* fi gumaacha Ogeeyyii Naannoo Wajjin Kan Qophahe

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Kitaaba *Garee Qoranno Itti Fufiinsa Teessuma Lafaa fi Naanno (landscape sustainability)* fi gumaacha Ogeeyyii Naannoo Wajjin Kan Qophahe

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Summary

Southwestern Ethiopia is a globally recognised biodiversity hotspot, the place of origin and centre of genetic diversity of *Coffea arabica*, and home to millions of smallholder farmers. Both the lives of these farmers and the natural environment in southwestern Ethiopia are rapidly changing. How can such change be navigated to ensure the best possible outcomes for both people and the environment? This small book is an invitation to envisage what the future might hold for southwestern Ethiopia, and how it can be shaped in such a way that it delivers the greatest benefits to its people and the environment.

To envisage plausible development trajectories, we worked with a wide range of local and regional stakeholders, including community members, government representatives, NGOs, and academics. Together with these stakeholders, we summarised socio-economic and environmental changes that are taking place in the region, and systematically investigated how these changes influence one another. Considering uncertainties in some trends, we articulated four plausible development trajectories. These so-called "scenarios" provide four alternative narratives of what the future might look like in southwestern Ethiopia in 20 years from now.

The four scenarios describe a gradient of development options, from

Yaada cuunfaa

Kibba lixa Itoophiyaa lubbuu qabeeyyiin hedduun (biodiversity) iddoo itti argaman ta'u akka addunyaatti kan beekamee fi bunni gosti arabikaa (*Coffea arabica*) iddoo itti argame akkasumas gidduu gala badhaadhinaati. Qe'ee qotee bultoota miliyoonaati. Kibba lixa Itoophiyaa akkaataan jireenyi qonnaan bultoota kanneenii fi haalli qilleensaa saffisaan jijjiiramaa jira. Jijjiiramni akkanaa kun bu'aa gaarii uummataa fi naannoof akka fidu akkamitti qorachuun danda'ama? Kitaabni xinnoon kun egereen kibba lixa Itoophiyaa maal akka fakkaatu uummannii naannoo fi bulchinsi sadarkaa ol'aanaan akka irraa huubatanii fayyadamaniif haala kamiin hojjetamuu qaba kan jedhu ilaaluuf akka afeerraatti kan dhiyaatedha.

Daandii adeemsa gara fuulduraatti ta'uu dandahu (ta'uu malu) ilaaluuf qooda fudhattoota dhiyeenyatti argamanii fi kan naannoo hedduu wajjin miseensota hawaasaa, bakka bu'oota mootummaa, miti mootummaa fi hayyoota barnootaa dabalate wajjin hojjenneerra. Qooda fudhattoota kanaa wajjin ta'uudhaan kibba lixa biyyatti irratti jijjiirama hawaas-dinagdee fi haala naannoo irra gahaa jiruu akkasumas mala qoranno dhaan deggaramuun akkaataan jijjiiramni kun tokko jijjirama isa biroo irratti dhiibbaa geessisu sirnaan qorachuun goolabneerra. Jijjiramoota gara fulduraatti nuti kan hin beekiin garuu

intensified food production, through a mixture of cash crops and food production (including the establishment of a new biosphere reserve), to a primary focus on coffee investment. We describe these scenarios in detail in this book, as well as providing an overview of the different opportunities and risks associated with each scenario.

We encourage to see the scenarios outlined here not as predictions of what the future will hold, but rather as a starting point for proactively approaching the future. What kinds of aspects of certain scenarios are desirable?

uumamuu kan dandahanis (uncertainties) adeemsa qoranno kana keessatti xiyyeeffannoo keessaa galchuun egeree naannoo kanaa keessatti haalota *amansiiso* tahan kan gara fulduraatti uumamuu dandahan yokaan tahuu malan afur keenyeerra. Haloota afran kanas “haala tahuu dandahu” (scenarios) jenne moggafneerra. Filannoon haalota tahuu dandahan afur caqafaman amma irraa jalqabee waggaa 20 gara fuulduraatti egareen kibba lixaa Itoophiyaa maal akka fakkaatu ni ibsa.

Haala tahuu dandahu (scenarios) arfan akka filannootti kaawaman kun haala misoomaa naanno kanaa kan ibsan yeroo tahan ibsi haalota tahuu dandahan kunis ibsa midhaan nyaataa haala ammayyaan oomishu dabalate, midhaan galii oomishu, oomisha walmakaa midhaani fi mukeewwan (hundeeffama bakkeewwan kunuunsa uumamaa) dabalatee akkasumas hanga xiyyeeffannoo invastimantii bunaatti kennutti kanjiran ofkeessaa qaba.

Haala tahuu dandahu (scenarios) kaaniin bal’inaan kitaaba kana keessatti ilaala. Akkasumas carraa fi sodaa tokkoon tokkoo haala tahuu dandahu wajjin walqabatan walumaa galatti ni ilaala. Haata’uuti haala tahuu dandahu (scenarios) kana keessatti caqafaman egareen maal akka fakkaatu akka ragaatti akka hin ilaalle fi garee egaree si’aayinaan ilaaluuf akka qabxii ka’umsaatti akka ilaaltan ibsu barbaanna. Haala tahuu dandahu (scenarios) gaarii irratti ilaalcha ak-

Which aspects are undesirable, and therefore should be avoided? Which actions, in turn, should be taken to encourage desirable aspects, and avoid undesirable aspects? We hope that discussing questions such as these will help to stimulate fresh thinking about how to best navigate development challenges in south-western Ethiopia.

kamiitu filatama? Ilaalcha akkamiitu hin filatamu? isa kamtu dhabamsii-famuu qaba? Gama biraatiin immoo ilaalcha filatame jajjabeessuuf gochaa kamtu fudhatamuu qaba? Ilaalcha hin filatamne dhabamsiisuuf gochaa kamtu fudhatamuu qaba? Qabxiileen armaan olii qabxiilee marii ni ta'u jechuun abdanna. Gaaffiileen kana fakkaatan hudhaalee misooma kibba lixa Itoophiyaa ilaallate yaada haaraa akka yaadamu ni godha.

Chapter 1

INTRODUCTION

Boqonnaa 1

SEENSA

Introduction

Have you ever asked local elders what life was like when they were young? They might recall the time when the country shifted from the Emperor regime to the Derg regime. In Ethiopia's southwest, at that time, land was plentiful – there were far fewer people than today, and despite the forest being even more expansive, scarcity of farmland was not a problem. There was enough space, in fact, to easily absorb an influx of immigrants from Ethiopia's north, where a major famine had driven people to the more productive lands of the southwest. In the southwest, the soils were rich, and useful insects such as bees were abundant in the farmland. The forests boasted many wild animals, and occasionally, you could hear lions roaring in the distance. But the elders might also tell you that infrastructure – such as schools, roads and medical facilities – was very poorly developed. People grew traditional, local varieties of crops, and lived in simple houses with grass roofs. And still, despite poor infrastructure, many elders will report that overall, people worked hard and were quite healthy.

When you compare such accounts of the elders with what life in Ethiopia's southwest is like today, you realise that many things have changed. Some changes have positively affected the lives of local people. There are better connections to regional, national, and even international markets, partly

Seensa

Maanguddoota biyyaa yeroo isaan dargaggoo yokaan bara ijoolle turan jireenyi maal akka fakkaatu gaafattanii beektuu? Biyyattiin yeroo Mootii (Hayilasillaasee) irraa gara Dargiitti ceetu yaadachuu ni maluu. Yeroo sanatti kibba lixa Itoophiyaa lafti bal'inaan argama. Yeroo sanatti baay'inni uummataa kan ammaa jiru irraa xiqqaadha. Bosonni caalaatti bal'aa ta'ullee lafti qonnaa rakkoo hin turre. Iddoo gahaan ni jira ture, dhugaa dubbachuuf, baqattoota hongeen hubaman kaaba Itoophiyaa irraa gara lafa qonnaaf badhaadhe kibba lixaa qubachiisuuf (hammatuuf) salphaa ture. Kibba lixaa biyyoon gabbataadha. Ilbiisonni faayidaa qabeeyyii ta'an kan akka kanniisaa heddumminaan lafa qonnaa irratti argamu ture. Bosonni yeroo sana jiru bineensota bosonaa heddumminaan kan qabu waan tureef yeroo baay'ee leenci dhiheenya irra yoo bookkisu ni dhaga'ama ture. Haata'u malee, bu'uuraalee misoomaa kan akka mana barumsaa, daandii, tajaajilli fayyaa danuu dadhabaa akka ture maanguddoonni isinitti himuu ni malu. Uummanni haala aadaatiin bulu, midhaan gosa naannoo irratti baratame facaasuu, salphaamatti mana citaa irraa ijaarame keessa jiraatu. Kana ta'eetu, bu'uuraaleen misoomaa diriirfaman dadhabaa ta'us, cufti namaa ciminaan akka hojjetanii fi fayya qabeessa akka ta'an maanguddoon ni gabaasu.

facilitated by a much improved road network. Many schools and health centres have been built. The latter has meant major improvements in the experience of childbirth, which is now much safer for both mothers and babies. Indeed, the role of women in local communities has changed in several ways – in a growing number of households, husbands and wives now decide together on their livelihood strategies, and women are much more prominently and actively involved in community meetings than their mothers were, one generation ago. Farming techniques have also evolved, with new varieties of crops and coffee having been bred, and agrochemicals being more and more widely used to generate higher yields.

In addition to some clearly positive changes, some changes have been a mixed blessing. The commerciali-

Dubbii maanguddoo jireenyaa kibba lixaa Itoophiyaa yeroo ammaa jiruun yoo wal bira qabuun madaaltan wantoonni hedduu kan jijjiiraman ta'uu ni hubatu. Jijjiirraan gaariin jireenyaa hawaasa naannoo irratti dhiibbaa gaarii uumeera. Walitti hidhamiinsa daandii gamtokkoon kan fooyya'e waan ta'eef,walitti hidhamiinsa gabaa sadarkaa naannoo, biyyoolessaaa fi addunyaa foyya'aatu jira. Manneen barumsaa fi buufannu fayyaa hedduun ijaaramaniiru. Buuffanni fayyaa babal'achuun du'a haadholii dahumsaan walqabatee jiru hambisu irratti fooyya'inni gaariin akka jiraatu waan godheef yeroo ammaa daa'imaa fi haadhaafis gaariidha. Hawaasa naannoo keessatti gaheen dubartoota haala baay'een jijjiirameera. Dhaloota tokko dura wajjin walbira qabnee yoo ilaallu haadholee irraa yoo ilaalamu dubartoota irratti abbaan warraa fi haati warraa karoora jireenya isaanii irratti waliin mari'atu. Akkasumas dubartoonni walga'ii hawaasaa irratti adda dureenii fi si'aayinaan ni hirmaatu. Malli (teeknikni) qonnaa ammayyaa hojiirra oolaniiru. Biqiltuu gosa haaraa wajjin bunni diqaaleffameera. Keemikaalli qonnaa baay'inaa fi bal'inaan oomisha hedduu akka kennuuf hojiirra oolaa jira. Jijjiirama ifatti mul'atee dabalataan jijjiiramni gaariin bu'aa makaa qabu. Fakeenyaaf, qonna daldalaaf akka oolu gochuun abbootiin warraa maallaqa callaa caalmaatti akka argatan godhus qotee bultoonni hedduun garuu lafti isaanii xaa'oo keemikaalaa heddumminaan fayyadamuu irraa kan ka'egabbinni

sation of farming, for example, has helped to raise the cash incomes of households, but many farmers say the soils have become tired from the overuse of chemical fertiliser, and some lament higher levels of dependency on agrochemical inputs, and being exposed to fluctuations in market prices. Land scarcity has become a widespread problem, such that households work much smaller plots of farmland and smaller coffee plots than in the past. Communal grazing land and traditional collaborative arrangements such as didaro and dabo have also declined in some communities. Many young people no longer want to be farmers. In an effort to secure a better economic future for themselves and their families, they migrate to cities elsewhere within Ethiopia, or sometimes as far as the Middle East. Some stay behind, but with few meaningful opportunities to generate livelihoods, they turn to selling and chewing khat.

While some of these changes could be foreseen, other changes were well beyond what current elders could have predicted when they were young. If anything, change has further accelerated in more recent years – influencing the environmental, social and economic spheres of life in Ethiopia's southwest. Nobody could have predicted what the future would be like some decades ago, and similarly, even the best science cannot predict accurately what the future will be like in some decades from now. And yet, it is clear that the decisions taken today, by both pol-

biyyee akka hir'ataa dhufee ni eeru, gariin immoo keemikaalota qonnaa fi xaa'oo hedduminaan fayyadamuun maxxantummaa akka uumee fi tasgabbii gatii gabaa dhabameef saaxiluu ni dubbatu. Hanqinni lafa qonnaa dabalaa waan dhufeef abbootiin warraa lafa qonnaa xiqqqaa fi biqiltuu bunaa xiqqaa irratti hojjetu.

Hawaasa garii keessatti lafti dheedhicha waloofi tumsi walgargaarsa hawaasaa kan akka dadaaroo fi daboo hir'ataa dhufeera. Dargaggoonni hedduun sichi qotee bulaa ta'uu hin fedhani. Jireenya ofii fi maatii isaaniif fooyyessuf jecha gara magaaloata biyya keessa yookiin hanga biyya Arabaattille ni godaanu. Gam-tokkeen dargagootaa kan achumatti hafan ta'us, jireenya isaanii foyyessuf carraan jiru muraasa waan ta'eef, jimaa gurguruu fi qama'uutti deebi'u. Jijjiirama garii (gam-tokkee) tilmaamuu kan danda'amu ta'ullee, jijjiiramonni amma mul'atan kan maanguddoon amma jiran yeroo dargaggeessa turan tahuu ni dandaha jedhanii kan tilmaamaa turaniin adda dhayokaan olidha. Baroota dhufan keessatti jijjiiramni saffisaan kan dhufu yoo ta'e, hawaasa naannoo fi dinagdee kibba lixa Itoophiyaa irratti dhiibbaa ni uuma. Waggoota kurnan muraasaan dura egereen maal akka fakkaatu kan tilmaame eenyuyyuu hin jiru. Haala walfakkaatuun waggoota kurnan muraasaan booda, egereen maal akka fakkaachuu danda'u haalaan saayinsiin tilmaamuu hin danda'u. Haata'uuti garuu, murtiin qa-

icy makers and community members, will influence the future. And so, despite an inability to accurately predict what will happen, it is important for everyone who has a stake in Ethiopia's southwest to engage with the question of what the future might hold. Open engagement with this question, involving policy makers, experts and local community, can help to get a much clearer idea of who wants what, and how it can be achieved. It can also help to foresee at least some of the likely risks and opportunities associated with different development pathways.

This book aims to stimulate discussions about the future of southwestern Ethiopia. We worked with many different stakeholders – from policy makers to local community – to generate four plausible stories of what the future of the region might look like. Technically, these stories are called "scenarios", a term we describe in further detail in the following chapter. Scenarios are grounded in an understanding of how one event leads to another in a particular place, such as a woreda, kebele or ecosystem. Depending on how

ama warra seeraa fi immaamata baasani fi miseensa hawaasaatiin amma murteeffamu egeree irratti dhiibbaa ni uuma. Kana waan ta'eef, maaltu akka uumamu sirriitti tilmaamuu danda'amuu dhabullee jiraattonni kibba lixa Itoophiyaa jiraatan kamiyyuu egereen naannoo isaanii maal fakkaata gaaffii jedhu of gaafachuu qabu. Gaaffii kana irratti iftoominaan warren seeraa fi imaammata baasan, ogeeyyii fi akkasumas hawaasa naannoo waliin tahuun eenyu maal akka barbaaduu fi haala kamiin argamuu danda'a kan jedhu yaada ifa ta'e qabaachuuf ni gargaara. Dabalataan adeemsa misooma garaagaraa wajjin walqabatee sodaa fi carraa uumamuu danda'u dursa ilaaluuf ni gargaara.

Kitaabni kun egeree kibba lixa Itoophiyaa irratti mariin akka godhamu kaayyeffatee qophaa'e. Qooda fudhatoonni garaa garaa – Qaama seera fi tarsiimoo qopheessan irraa hanga sadarkaa hawaasaatti jran wajjin hojjenneerra. Egereen naannichaa maal akka fakkaatu yaadota ta'uu malan afur qophaa'eera. Maqaa sirriitiin yaadonni kun haala tahuu dandahu (scenarios) jedhamu. Jecha kana boqonnaalee itti aanan keessatti bal'inaan ibsameera. Haala tahuu dandahu (scenarios) bu'uura kan godhate iddoo murtaa'e tokkotti kan akka aanaa, ganda yookiin sirna uumamaa irratti taateen tokko taatee biroof akkamitti tumsa akka godhu nu hubachiisa. Wantoota mirkaneessuu hin danda'amne garaagaraa egeree irratti taphachuu danda'an irratti hun-

different uncertainties about the future play out, different types of future will eventuate. We emphasise that the scenarios we discuss in this booklet are not intended to accurately predict what will happen in the future. Rather, they provide a space of plausible options, outlining what might happen. This, in turn, can be useful to weigh the advantages and disadvantages of different development trajectories, and thus can help to inform development policy and practice.

The four scenarios we describe showcase very different alternative futures. When you read them, you may find that aspects of some scenarios are very much things you would like to see in the future, whereas other aspects might be such that you very much hope they can be avoided. Some possible changes described might be good for some people but bad for others, or good for the immediate benefit of the economy but bad for the long-term health of the environment. Collectively, the four scenarios described illustrate that many different outcomes are possible in the future. Some questions naturally arise from such an analysis.

daa'uun egeree adda addaa uumamuu ni danda'a. Haala tahuu dandahu (scenarios) kitaaba kana keessatti mari'annee egereetti maal akka uumamu haalaan tilmaamuu irratti kan hin yaadne ta'uu ni hubachiisa. Garuu, maaltu akka uumamuu danda'uuf carraa filannoo ni uuma. Kun immoo gama birootiin bu'aa fi miidhaa hojiiwwan misoomaa garaagaraa gumaachan ulfaatina isaanii akka madaalu ni gargaara. Akkasumas imaammataa fi gochaalee misoomaa akka beeksifnu /eerru ni gargaara.

Haala tahuu dandahu (scenarios) afran caqafnee kan dhimmoota agarsiisan filannoo garaagaraa egeree afur agarsiisu. Yoroo dubbistan Haala tahuu dandahu egereetti wanti uumamuu danda'u akka ta'e isinitti mul'ata. Wantoonni gariin immoo dhabamsiifamuu akka danda'an abdii guddaatu jira. Jijjiiramni uumamuu danda'a jedhamee ibsame gariin isaanii namoota murtaayeef gaarii ta'uu yoo malu, namoota biroof immoo gadhee ta'u, yookiin faayidaa yeroo dhihoo dinagdeetiif gaarii yommuu ta'u yeroo dheeraaf nageenyummaa fi fayyummaa naannootiif gadhee tahu.

Walitti qabaan haala tahuu dandahu (scenarios) afran ibsaman egereetti wantoonni adda addaa uumamuu akka danda'u ni agarsiisa. Xiinxala kana irraa gaaffiin gariin uumamaan ka'uu ni danda'a. Akka fakkeenyaatti, egereen wanta kamiyyuu yoo ta'e qophaa'uuf maal gochuu qabna? Wanta rakkisaa beekame tokko kan uumamu yoo ta'e

You may ask, for example: What can we do to be prepared, no matter what the future holds? What can we do to be prepared if a particularly challenging change takes place? What can local communities do? What can policy makers do? Are there ways to actively steer away from certain scenarios, and towards other, more desirable ones?

This booklet has resulted from a collaborative effort. The scenario development process was led by researchers from Leuphana University Lueneburg (Germany) and Addis Ababa University, but could not have happened without the generous expert input by many local organisations and individuals, including those listed as contributors inside the front cover.

The remainder of this booklet is organised as follows. The following chapter explains the procedures we used to generate the scenarios, including a description of how we involved local stakeholders. The four chapters thereafter then introduce the four different scenarios. For each scenario, we provide a short summary, an extended description, and an assessment of its risks and opportunities. Finally, the last chapter of the booklet provides a synthesis of the most important findings, and summarises key recommendations for how to navigate the future.

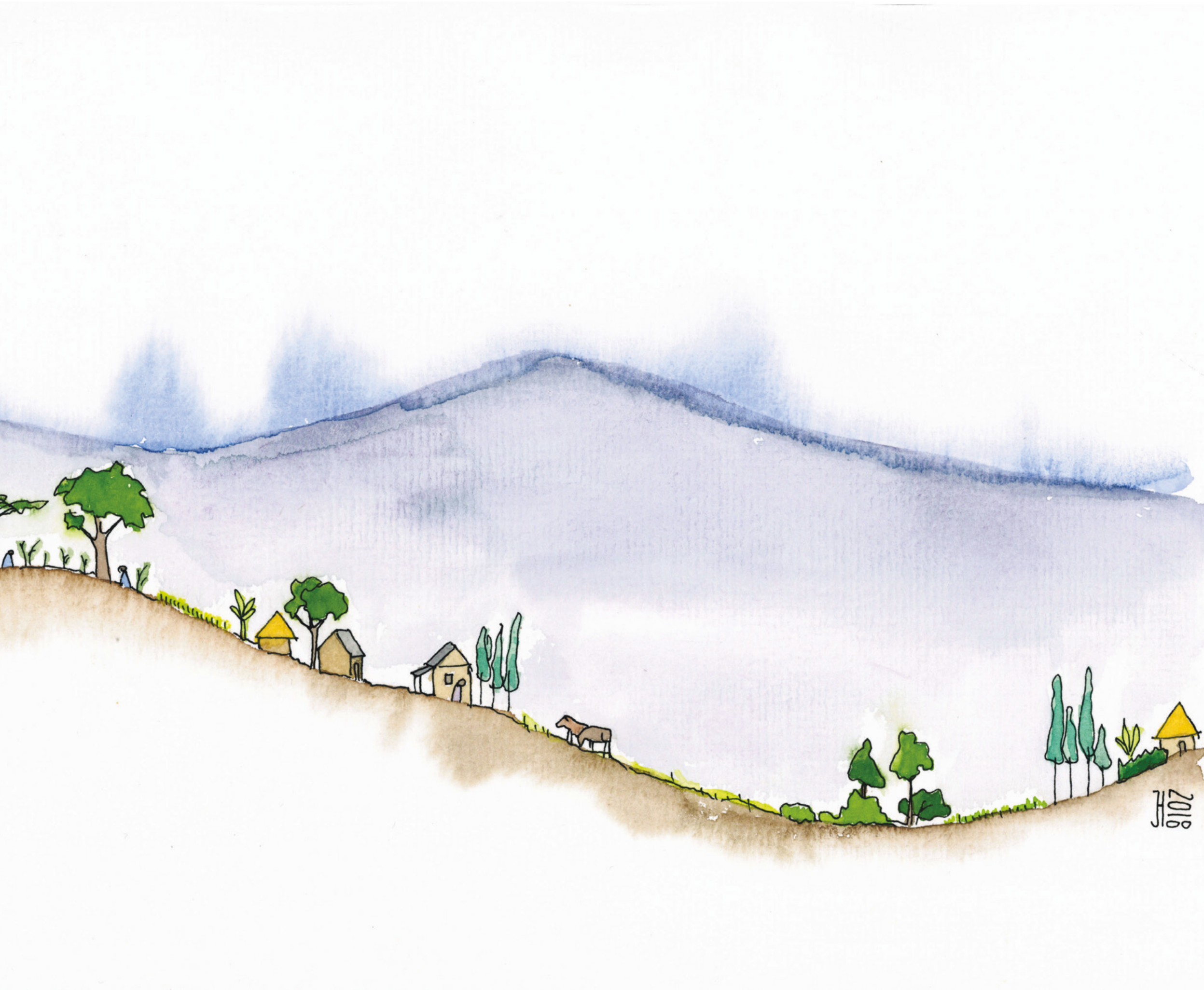
qophaa'uuf maal gochuu qabna? Hawaasni naannoo maal gochuu qaba? Qopheessitoonni imaammataa maal gochuu qabu? Haala tahuu dandahu (scenarios) tokko irraa si'aayinaan fagaatuun haala tahuu dandahu (scenarios) birootiif fuuleffannoo kennuun ni danda'amaa? Gaaffilee jedhu gaafachuu maltu.

Kitaabni kun kan argame tumsa waloo. Adeemsa qopheessaa haala tahuu dandahu (scenarios) kan taasifame qorattoota Yuunivarsitii Lufaanaa (Luuneburg, Jarman) fi Yuunivarsitii Finfinnee wajjin ta'uudhaan yommuu ta'u dhaabbilee hedduu kan naannoo fi ogeeyyiin maqaan isaanii seensa uwwisa kitaabaa irratti caqafame galtee ogummaa osoo gumaachuu baatanii galma hin gahu ture. Yaadni kitaaba kanaa akka armaan gadiitti qindaa'eera. Boqonnaawwan armaan gadii haala tahuu dandahu (scenarios) qopheessuuf adeemsa fayyadamne mul'isa. Kunis abbootiin gahee naannoo akkamitti akka hirmaachisne ni ibsa. Boqonnaawwan itti aanan afran haala tahuu dandahu (scenarios) garaagaraa afran wajjin wal barachiisa. Tokkoon tokkoon haala tahuu dandahu (scenarios), yaada cuunfaa gabaabaa, ibsa dheeraa fi soda fi carraa jiru qorachuun dhiyeessineerra. Xumura irratti boqonnaan xumuraa kitaabichaa bu'aalee barbaachisaa argaman ijaaruu akkasumas, egeree qorachuuf dhaamsa barbaachisaan goolaba.

Chapter 2

THE DEVELOPMENT OF SCENARIOS FOR THE SOUTHWEST

Boqonnaa 2



KIBBA LIXAAF HAALA TAHUU DANDAHU (SCENARIOS) QOPHEESSUU

The development of scenarios for the southwest

Representatives of 29 regional organisations and local community groups took part in the scenario development process (see inside of the front cover for a list of participants). Together, these stakeholders represented three important pillars of sustainable development, namely environmental, social and economic interests.

To start with, we asked stakeholders to list important changes that had taken place in the last two decades until now, and we asked them to consider what changes might take place in the future. We then analysed possible relationships between the different changes. For example, human population growth might lead to an increase in land scarcity. This, in turn, can be expected to decrease crop yields for any given household, which would negatively affect household incomes and food security (that is: increasing human population → greater land scarcity → reduced crop yields per household → reduced income and food security).

Cause-and-effect chains like this can be very complex, because one change can sometimes cause a series of additional changes. Sometimes, the resulting patterns can even reinforce an initial change (a so-called

Kibba lixaaf haala tahuu dandahu (scenarios) qopheessuu

Adeemsa qophii haala tahuu dandahu (scenarios) keessatti waajjiraalee fi garee hawaasa naannoo irraa bakka bu'oonni 29 irratti hirmaataniiru (maqaa waajjiraalee hirmaatan ilaaluuf keessa haguuggii fuulduraa kitaabichaa ilaalaa). Gamtaadhaan qooda fudhattotni kunneen misoomaa itti fufiinsaa fiduuf ulaagaalee barbaachisoo tahan sadii irraa kan bakka bu'anidha. Isaanis eegumsa naannoo, sirna hawaasa fi akkasumas ijaarsa dinagdee dha.

Jalqabarratti waggoota kurnan lamaan darban irraa kaasee hanga ammaatti jijjiiramni barbaachisaan uumaman maal fa'a akka ta'an qooda fudhattota gaafannee. Itti aansuunis egereetti yokaan gara fulduraatti jijjiiramoonni akkamitu uumamuu akka danda'u akka hubatan qoda fudhattota gaafannee jirra. Fakkeenyaaf, baay'inni uummataa dabaluu, hir'inni lafaa amma jiru dabaluu akka malu kun immoo gama birootiin abbaan warraa kamiifuu oomisha argatu akka hir'achuu danda'u ni eegama. Kun immoo, galii fi wabii nyaataa abbaa warraa irratti dhiibbaa ni uuma (kana jechuun: baay'inni uummataa dabaluu → hir'ina lafaa guddaa uuma → oomishni argamu tokkoon tokkoon abbaa warraatiin ni xiqqaata → galii fi wabummaan nyaataa ni hir'ata).

Fig. 1. *A street scene, depicting south-western Ethiopia in 2018. How will this landscape change over the next 20 years? This painting acts as a present "baseline" and can be compared with the paintings associated with the four different scenarios shown in the following chapters.*

Fakkii 1. *Qaamni diriiraa kibba lixa Itoophiyaa bara 2010 keessatti maal akka fakkaatu agarsiisa. Teessumni lafaa kun waggoota 20n booda akkamitti jijjiiramaa? Maxxansi kun kan agarsiisu yeroo ammaa akka sarara bu'uuraatti fudhachuun maxxansaa kan ta'uu maluu afran boqonnaa itti aanan keessatti caqafame wajjin walmadaalsisuuf gargaara.*

reinforcing feedback effect). For example, modernised farming often uses high levels of external inputs. This can increase crop yields, and in

Cancalli fi hariiroon jijjiiramoota kana giddu jiru walitti hidhamaa fi walxaxaa dha. Akkasumas sababaa fi bu'aan jijjiiramoota akkanaa kun daran walitti

turn, can lead to the generation of surplus yields, which can be sold in markets. The revenue resulting from this can then be invested to further modernise farming, for example, by purchasing additional improved varieties or agrochemicals (that is: modernisation of farming → increased crop yields → surplus yield for sale to markets → revenue → modernisation of farming).

Alternatively, feedback effects can also balance, or slow down, an existing trend. For example, through the over-application of agrochemicals, modernised farming can actually reduce natural soil fertility. This, in turn, will reduce crop yields, thereby limiting surplus production and hence revenues. The opportunity to further modernise farming, in this example, would then be compromised (that is: modernised farming → over-application of chemicals → reduced soil fertility → yields short of what was expected → revenues lower than expected → inability to further invest in the modernisation of farming). In a series of workshops with local people, we combined many of such cause-and-effect chains into a detailed diagram, describing the environmental, social and economic interlinkages in Ethiopia's southwest. This detailed diagram is shown in the Appendix at the end of the book.

While the baseline model thus generated provides a good overview of the general dynamics of the region,

xaxaadha. Sababni isaas, jijjiiramni tokko tokko yeroo tokko tokko jijjiirama dabalataa walitti aanan uumuu ni danda'a. Yeroo tokko tokko immoo adeemsa jijjiramaa heeddu keessa jijjiiramni inni jalqabaa deebi'ee akka jijjiiramu gochuu ni danda'a (dhiibba durduubee). Akka fakkeenyaatti, qonni ammayyaan yeroo baay'ee galtee (input) alaa hedduu barbaadu. Kun immoo oomisha dabaluu ni danda'a. Kun immoo dabareedhaan oomishni garmalee hedduu akka argamu taasisa. Kunis gabaa geeffamee gurgurama. Galiin kana irraa argamu immoo qonna caalaatti ammayyeessuuf invastii gochuun ni danda'ama. Akka fakkeenyaatti, sanyii filatamaan yookiin keemikaala dabalataa bituu (kana jechuun: qonna ammayyeessuu → oomishni dabaluu → gabaatti gurguruuf oomishni hedduun argamu → galii → qonnaa ammayyeessuu).

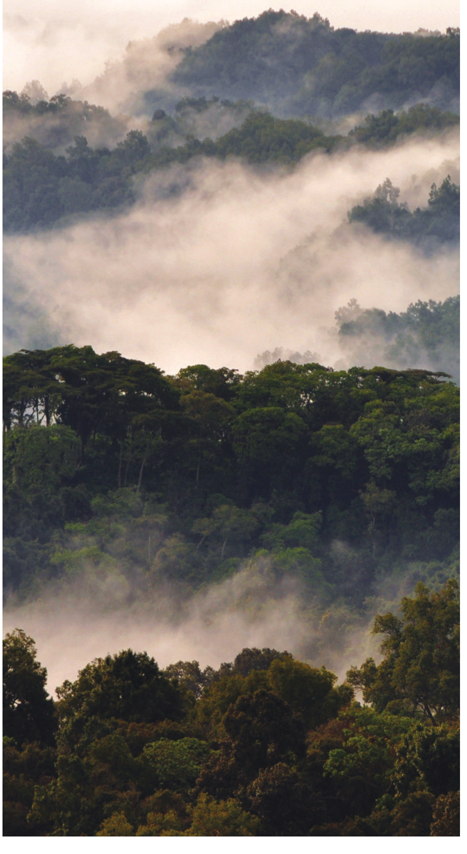
Gama biraatiin immo, dhiibbaan duub-deebii adeemsa jiru madaalawaa akka ta'u hir'isuu ni danda'a. Kana jechuun, jijjiramni tokko yeroo dabaluu inni kaan immo hir'achuudhaan wal madaalessa. Fakkeenyaaf, keemikaala qonnaa ol'aanaa fayyadamuun qonni ammayyaa'ee gabbina biyyee uumamaa hir'isuu ni danda'a. Kun immoo dabaree isaatiin oomisha argamu ni hir'isa. Baay'ina oomisha argamuu ni daangessa, waan ta'eef galii ni hir'isa. Akka fakkeenya kanaatti, carraan qonna dabalataan ammayyeessuu rakkoo keessa galcha (kana jechuun: qonni ammayyaa → keemikaala olaanaa fayyadama → gabbinni biyyee

depending on some uncertain factors, different aspects of the general dynamics will play out more or less strongly. For example, stakeholders felt there was substantial uncertainty regarding what would happen to farmland and forest in the future. To what extent will intensive coffee production expand, and will this take place in the forest or on farmland? To what extent will modern farming technologies be used? Will climate change render the production of some crops impossible? These and other uncertainties were identified by local stakeholders during the workshops we conducted. Major uncertainties identified revolved around topics such as local living conditions and traditions, land use and climate change, income and employment opportunities, and land use rights.

In a final step to develop the scenarios, we combined our cause-and-effect model with a selection of these uncertainties. We chose to focus on the

ni hir'ata → kan argamuu gadi oomisha kenna → galiin kan eegamuu gadi ta'a → dabalataan qonna ammayyeessuuf humna dhabuu). Uummata naannoo wajjin woorkishooppii/marii walitti aanan gochuun dhimmoota kana fakkaatan (cancala sababaa fi bu'aa walitti qabataa tahe) iddoo tokkotti fakkiidhaan gurmeessineerra. Fakkiin kunis haala walitti hidhama eegumsa naannoo, hawaasaa fi dinagdee kibba lixa Itoophiyaa agarsiisa. Fakkichi bal'inaan xumura kitaaba kanaa irratti miiltoo ta'ee agarsiifameera. Sababoota hin mirkanoofne gariin hundeen sararootaa agarsiifaman jijjiirama waliigala naannichaa ni agarsiisa. Sababoota hin mirkanoofne galii irratti hundaa'uun jijjiirama waliigalaa garaagaraa cimina ol'aanaan yookiin gadi aanaan taphachuu ni mala. Fakkeenyaaf, iddoo qonnaa fi bosonaa irratti egareen maal akka fakkaachuu danda'u wantootni beekamuu hin dandeenye heddumminaan akka jiran qooda fudhattotatti ni dhagahama. Babal'achuun oomisha qonnaa baay'ina qabu hangam ba-

future in 20 years from now, and especially considered major uncertainty in the extent to which food or cash crops would be grown in southwestern Ethiopia (Fig. 2). Through further discussions with local stakeholders, these considerations led to four different stories – or scenarios – describing what the future might be like. We re-iterate that these scenarios are not predictions. Depending on a whole range of factors such as policies, population growth and climate change, any of these four scenarios might emerge, or most likely, a mixture of different aspects of all of the scenarios. That is, the goal of the scenario de-



bal'ata? Babal'inni kun bosona irratti moo lafa qonnaa irratti adeemsifama? Teeknoloojiin ammayyaa qonnaa hanga kamiitti tajaajila irra ooluu qaba? Jijjiiramni qilleensaa biqiltuu miidhan gariin oomishni akka hin kennine ni taasisaa? Miidhaan hin mirkanoofne kanneenii fi kan biroos yeroo workishooppii /marii taasifneen qooda fudhattootaan addaan bahaniiru. Sodaan hin beekmne kunnen hedduun isaanii kan xiyyeeffatan mata duree haala jireenyaa, aadaa/barmaatilee, fayyadamiinsa lafaa, jijjiirama qilleensaa, galii fi carraa hojii fi mirga fayyadamuudha.

Haala tahuu dandahu (scenarios) qopheessuuf tarkaanfii xumuraa irratti sababaa fi bu'aa (cause and effect) wanta dhibbaa dhibbatti haalli jijjirama isaanii hin beekamnee (uncertainites) wajjin walitti qindeessineerra. Akka kibba lixa Itoophiyaatti, amma irraa jalqabee waggaa 20 dhufuuf, jijjiramonni hin mirkanoofne gurguddaan midhaan nyaataa fi midhaan galii argamsiisan irratti fuuleffannaa gochuu filanneerra. Qooda fudhattota naannoo wajjin marii dabalataa gochuun fuuleffannaan kun haala tahuu dandahu irratti yaada garaagaraa afur yookiin haala tahuu dandahu (scenarios) fideera (Fakkii 2). Kunis egareen naannoo kanaa maal akka fakkaatu ni ibsa. Haala tahuu dandahu afran kun tilmaama akka hin taane sirritti hubachiisuu barbaanna. Sababoota haalota kana fiduu dandahan irratti hundaa'uun, (kan akka imaammataa, tarsiimoo, baay'ina uummataa, jijjii-

velopment process was not to assess precisely what will happen, but rather to think about the risks and opportunities that present themselves in the context of alternative, plausible development trajectories.

The following chapters in this book describe the four different scenarios, which are named “Gain over grain: local cash crops”, “Mining green gold: coffee investors”, ”Coffee and conservation: a biosphere reserve”, and

rama qilleensaa), haala tahuu dandahu afran keessaa inni tokko yookiin wal-makiinsi isaanii mul’achuu (uumamu) ni mala. Adeemsa kan ta’uu maluu qopheessuun wanta uumamu qorachuu osoo hin taane, sodaa fi carraa jiru yaaduu fi gara qabiyyee filannootti jijjiiruudha.

Kitaaba kana keessatti boqonnaaleen itti aanan, haala tahuu dandahu garaagraa afur ibsa. Maqaan isaaniis "Midhaan irra bu'aa maallaqa dursuu:

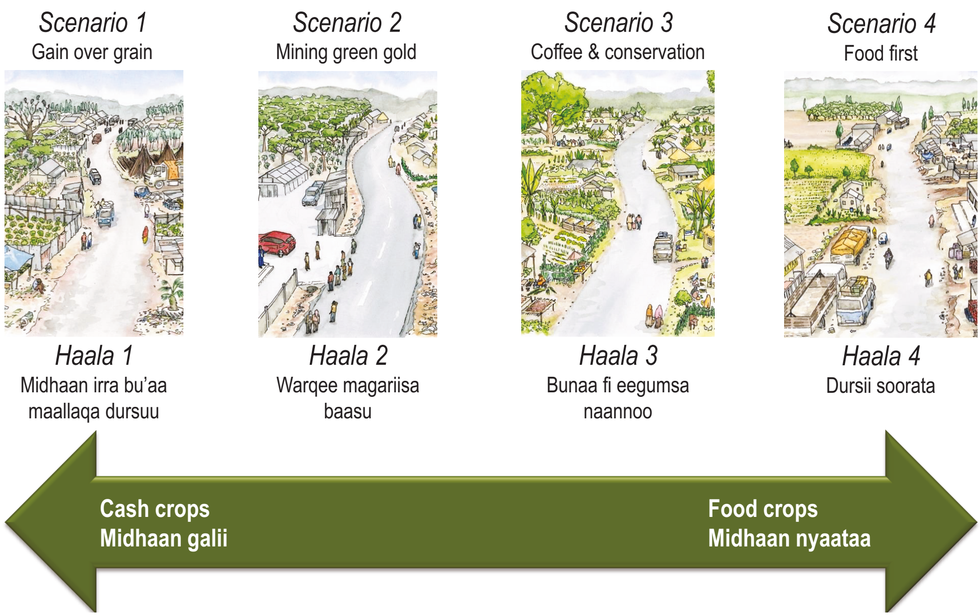


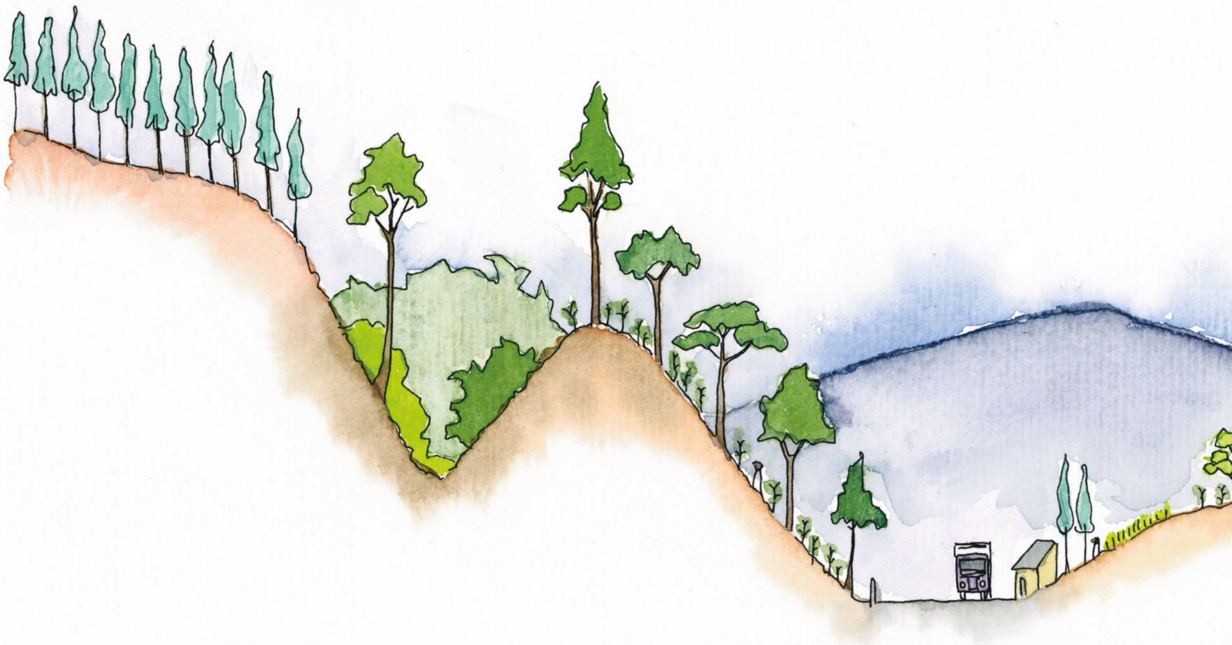
Fig. 2. *Four plausible scenarios describing alternative development trajectories for southwestern Ethiopia in 20 years from now. The scenarios were developed in collaboration with local stakeholders and describe a gradient from a primary focus on cash crops to a primary focus on food crops.*

Fakkii 2. *Filannoowwan haala ta’uu dandahu afran kibba lixa Itoophiyaa amma irraa waggaa 20f qophaa’eera. Haala tahuu dandahu kan qophaa’e qooda fudhattota naannoo jiran wajjin ta’uudhaan yommuu ta’u galteen fuuleffannoo dursaa oomisha midhaan galii irraa kaasee gara fuuleffannaa dursaa oomisha midhaan nyaataa irratti ibsa kenna.*

“Food first: intensive farming and forest protection”. Collectively, they describe a gradient in possible development trajectories from a primary focus on cash crops to a primary focus on food crops (Fig. 2). For each scenario we present stylised paintings of the future landscape and a street scene, which can be compared with paintings of the landscape at present (Fig. 1). We also provide a short summary, an extended description, and a list of the opportunities and risks associated with each scenario, in environmental, social and economic terms. All of the steps were developed in collaboration with local stakeholders. As you read the scenarios, you might ask yourself, which aspects do you like or dislike? What would need to happen for a certain desired change to come about, or for a certain undesired change to be avoided? What might be the role of your organisation in this? What can you or your organisation do so that the region has a better future?

Oomisha midhaan galii", "Warqee magariisa baasuu: Abbootii qabeenyaa bunaa", "Bunaa fi eegumsa naannoo: Lubbuu qabeeyyii daangessanii tursiisuu" fi "Dursii soorata: Haalaan qotuu fi bosona kunuunsuu". Walitti haala tahuu dandahu kunnen haala misooma naannoo kanaa gara fulduraa kan agarsiisan yemmu tahu xiyyeffannon jirus fiixee tokko irraa (Xiyyeeffannon omisha midhaan galii) irraa gara xiyyeffannoo gama biraa (Omisha midhaan nyaataa) kan jiran mul’isa (Fakkii 2). Tokkoon tokkoo teessumni lafaa maal akka fakkaatu maxxansaadhaan dhiyaateera. Waan ta’eef teessuma lafaa amma jiruu wajjin wal madaalsisuuf ni gargaara (Fakkii 1). Ibsa tokkon tokkon saanii keessatti yaada cuunfa, Ibsa bal’aa, tarreeffama carraa, sodaa Haala tahuu dandahu naannoo, hawaasaa fi dinagdee wajjin walqabatan dhiyaataniiru. Tarkaanfiin kunniin hundi qooda fudhattota naannoo wajjin ta’uudhaani dha. Akkuma haala tahuu dandahu dubbistan ilaalcha kam akka jaallattanii fi kam akka jibbitan of gaafachuu maltu? Jijjiiramni barbaadamu akka dhufuuf maaltu uumamuu qabaa? Jijjiiramni hin barbaadamne hambisuuf maal ta’uu qabaa? Gaheen dhaabbata keessanii kana keessatti maali? Naannichi egaree bareedaa akka qabaatuuf dhaabbanni keessan maal hojjechuu qaba?

Chapter 3



GAIN OVER GRAIN: LOCAL CASH CROPS

Boqonnaa 3

MIDHAAN IRRA BU'AA MAALLAQA DURSUU: OOMISHA MIDHAAN GALII

Chapter 3

Gain over grain: local cash crops

Summary

The Ethiopian government has prioritised farmer specialisation and commercialisation to boost development. As a result, southwestern Ethiopian farmers have abandoned traditional food cropping and focus on cash crops for which biophysical conditions are suitable – coffee, khat and fast-growing trees. The landscape now consists of intensively managed coffee forests interspersed with khat and tree plantations, while food production is limited. Farmland biodiversity is dramatically reduced because of simplified habitats and intensive management. Forest biodiversity is also reduced due to intensive management, but forest wildlife still persists. Wildlife raids of food crops heavily impact farmers. Living standards are high for some, but less wealthy farmers and landless people have been marginalised and are worse off now than in the past. Social costs are high: commercialisation through cash crops has reduced traditional cooperative management, khat consumption is epidemic, and mistrust is high within the community.

Detailed scenario description

Following international calls for ag-

Boqonnaa 3

Midhaan irra bu'aa maallaqa dursuu: Oomisha midhaan galii

Cuunfaa

Mootummaan Itoophiyaa misooma babal'isuuf jecha qonna ammayyeessuu fi daldalaaf akka mijatuuf dursa kenneera. Waan ta'eef, qotee bultoonni kibba lixa Itoophiyaa biratti kan baratame midhaan nyaataa oomishuu dhiisuudhaan oomisha midhaan galii kan haalli qilleensaa mijateef kan akka bunaa, jimaa (Caatii) fi mukeen saffisaan guddatan irratti fuuleffannaa kenna. Haalli teessuma lafaa yeroo ammaa akka agarsiisutti bosonni bunaa fi jimaan wal keessatti kan dhaabamu akkasumas muka dhaabuu kan hammatu yommuu ta'u, oomishni midhaan nyaataa garuu hir'ateera. Baay'inni badhaadhina lubbuu qabeeyyii (Biodiversity) lafa qonnaa daran kan hir'ateef sababa biqiltuu fi lubbu qabeeyyiin waan xiqqaatanii fi lafa qonnaa akka malee itti fayyadamuuni dha.

Heddumminni lubbuu qabeeyyi kan bosonaa keessaas gadi bu'eera. Kunis kan ta'eef, itti fayyadamni lafaa gar malee waan tahee fidha. Haata'u malee, bineensonni bosonaa hanga ammaatti ni jiru. Bineensonni bosonaa biqiltuuwwan yokaan sanyii midhaan nyaataa irratti hirkatan midhaan nyaataa mancaasuudhaan-

Fig. 3. *A street scene in the scenario "Gain over grain: local cash crops".*

Fakkii 3. *Haala tahuu dandahu (scenarios) "Midhaan irra bu'aa maallaqa dursuu: Oomisha midhaan galii".*

ricultural development and national agricultural policy strategies, the Ethiopian government has focused on farmer commercialisation and specialisation as a pathway to increase economic returns and surplus production from smallholder agriculture. While in other parts of Ethiopia the focus is on food production, in the southwestern region farmers are encouraged to increase coffee produc-

qonnaan bultoota daran ni hubu. Haalli jireenyaa ol ka'eera. Haata'uyyu malee namoonni harka qalleeyyii fi kanneen lafa qonnaa hin qabne namoota biroo caalaa ni rakkatu, kan waggoota darban caalaas amma rakkisaa ta'a. Baasiin hawaasaa ol ka'eera. Karaa oomisha midhaan galiitiin daldalli adeemsifamu aadaan walgargaarsaa fi tumsa hawwaasaa hir'iseera. Fayyadamiinsi jimaa naannoo keessat-

tion. Legal and environmental concerns prevent the government from also supporting other major cash crops, such as khat and fast-growing trees like Eucalyptus, but a lack of law enforcement and thriving markets have caused the expansion of these crops nevertheless. Actual crop choice often is rather opportunistic, and rapidly growing rural and urban populations further increase the demand for cash crops. Throughout the region, major investments have been made to improve road and railway infrastructure to allow market expansion and access.

The landscape now consists of large plots of intensively managed coffee forests interspersed with khat and tree plantations throughout the former farmland. The coffee forests are intensively managed, especially through regular clearing of undergrowth and heavy use of agrochemicals. While the coffee forests still provide some refuge to wild biodiversity, management practices have resulted in a stark loss of plant species and wildlife compared to the past. Khat plantations on former farmland are intensively managed as well. Tree plantations, most prominently monocultures of Eucalyptus, but also other fast-growing species such as Grevillea or Cupressus, are widespread, and in some places bamboo and native trees are also cultivated. The plantations of exotic species have severely impacted soil quality and lowered water tables in the landscape, which has made the area not ti heeddu baratameera. Hawaasa keessatti wal amanuu dhabuun guddateera.

Ibsa bal'inaan haala tahuu dandahu (scenario) kanaa

Istiraateejiin misooma qonnaa fi qonna biyyoolessaa addunyaa waamuu itti aansee dinagdee ol guddisuu fi oomisha olaanaa qonna xixiqqaa irraa argachuuf mootummaan Itoophiyaa qonna ammayyeessuu fi daldalaaf mijaa'aa akka ta'u fuulleffannoo kenneera.

Bakkewwan Itiyoophiyaa biroo keessatti fuulleffannoon oomisha midhaan nyaataa irratti yommuu ta'u, kibba lixa biyyaatti keessatti immoo qonnaan bultoonni oomisha bunaa akka oomishan ni jajjabeeffamu. Seerrii fi himamatni mootummaa oomisha biqiltoota galii argamsiisan kan biroo kan akka jimaa fi mukeen saffisaan guddatan kan akka baargamootiif deeggarsa akka hin goone dhorkus raawwiin seeraalaafaa tahuu fi fedhiin gabaa biqiltoota kanaa olaanaa ta'uu irraan kan ka'e biqiltuun kunniin akka babal'atan godheera. Biqiltuu midhaan nyaataa yeroo baay'ee filannoo ta'eera. Akkasumas saffisaan baay'inni uummataa baadiyyaa fi magaalaa guddachuun dhiyeessii oomisha midhaan galii daran akka dabalu godheera. Guutummaa naannichaa keessatti investimantii gurguddaan bu'uuraaleen misoomaa daandii konkolaataa fi baaburaa akka fooyya'u taasisuun gabaan akka babal'atu fi akka gabaa seenan taasiseera.

only more susceptible to droughts but also made large areas unsuitable for agriculture. Farmland biodiversity has plummeted dramatically, because khat and tree plantations provide habitat to very few native species. Baboons and monkeys, however, still live in the forests and use farmland tree plantations for shelter; the animals' frequent raids of homegardens and small fields pose a serious problem to the remaining crops, especially for poor farmers who rely on their own food production.

Live fences in the farmland protect the valuable cash crops from theft or destruction. Very little space remains for cultivating cereal crops, and few farmers have maintained small fields or homegardens for cereals. These small parcels for gardening and cropping are vital for the poor, because their lack of land and economic resources has excluded them from the cash crop boom and has limited their access to forest ecosystem services.

Teessumni lafaa amma jiru qonna buna bosonaa haala hammayaaheen fi akkasumas jimaa fi mukeewwan adda addaan walmakuun kan uwwifame dha. Qonni buna bosonni haala hammayaaheen kan oomishamu yemmu tahuu mukeenii fi biqiltuuwwan xixxiqqo bosona keessaa ciruu dhaan akkasumas keemikaala qonnaa heeddumminaan fayyadamuudhaani. Bunni bosonaa biqiltootaa fi lubbu qabeeyyi bosonaa adda addaaf hanga tokko dahoo ta'us, haalli oomisha bunaa ammayyessun (fakkenyaaf buna jala ciruu)kun garuu mancaatii cimaa sanyii biqiltuu fi bineensota bosonaa irraan gaha. Oomishni jimaas lafa qonnaa duraanii irrattii haala ammayaaheen farra ilbiisootaa fayyadamuun kan oomishamu taha. Biqiltuun mukaa dhaabamu irrra caalaatti biqiltuu gosa tokkoo baargamoo ta'us biqiltuun mukaa saffisaan guddatan biroo kan akka biqiltuu mukaa hindheessaa/gaattiraa fi giraaviliyaas babal'ateera. Iddoo tokko tokkotti immoo biqiltuun uumamaa akka leemmanaa fi biqiltuu biroo ni dhaabamu. Gosti biqiltuu biyya alaa heedduminaan babal'achuun kun oomishtummaa biyyoo mancaasuun akkasumas bishaan lafa jalaa akka gadi bu'u taasiseera. Kana waan ta'eef naannichi hongeef saaxilamaa akka ta'u qofa osoo hin taane, lafti qonnaa bal'aanqonnaaf mijataa akka hin taane godheera. Itti dabalataanis, sababa biqiltuun jimaa fi mukkeen kan akka baargamoo lubbu qabeeyyii adda addaaf dahoo waan hin taaneef lubbu qabeeyyiin lafa qonnaa irraa akka mancahan taha. Haata'u malee garuu

Overall, households have benefited from increased incomes and higher (material) living standards – almost all houses now have metal sheet roofs. Infrastructure and public services have improved, more children complete secondary school, and the overall population is becoming more educated. While many people are driven to emigrate from the southwest due to the growing population, increased education and knowledge have decreased population growth rates. Imported food from outside the region is now

jaldeessii fi qamaleen bosona keessa ni jiraatu, mukeen lafa qonnaa irratti biqilfaman mandhee godhachuun omisha midhaanii qe'ee keessati fi lafa qonnaa xixiqqaa irra jiran mancaasuun keessaayyuu qotee bultoota harka qalleeyyee oomisha nyaataa mataa isaanii oomishuu irratti hundaa'aniif rakkoo guddaa fida.

Dallaa ijaaruun oomisha midhaan galii tahan kana hattuu fi mancaatii irraa ni eega. Lafti qonna midhaan nyaataatiif oolu ni xiqqaata akkasumas qonnan bulaa muraasatu lafa qonnaa midhaan nyaataaf oolu qee'ee keessaati yokaan lafa qonnaa irratti hambisa. Sababa hanqina lafaa fi qabeenya diinagdee irraan kan ka'e qonnaan bultoonni harka qal'eeyyi carraa midhaan galii oomishu fi irraa fayyadamuu hin argatani. Kana waan ta'eef, lafti qoonnaa xixiqqonii fi qe'ee oomisha midhaan nyaataaf oluu heeddu isaan barbaachisa.alumaagalatti, galiin dabaluu fi sadarkaan jireenyaa dabalu (higher living standard) irraa abbootiin warraa fayyadamaa ta'aniiru – manneen hundumtuu haala jechuun danda'amuun mana baaxii qorqorroo qabuun, bu'uuraaleen misoomaa fi tajaajilli uummataa (public service) fooyya'aa turaniiru, ammas fooyya'uutti argamu, ijoolleen caalmaa qaban barumsa sadarkaa 2ffaa ni xumuru, waliigalatti uummatni caalmaatti kan baratan ta'aniiru. Baay'inni uummataa dabaluu irraa kan ka'e, kibba lixa Itoophiyaa irraa namoonni hedduun kan godaanan tahus garuubabal'achuun barumsaafi bee-

available at relatively cheap prices. Food security is high and people's diets now often include industrially processed foods including meat and dairy products. However, uncertainties remain in periods of drought and due to market price fluctuations. Social costs, in contrast, have been very high. There is a high degree of inequity, and poor people unable to seize cash crop opportunities are even poorer now. The increase in khat production also enhanced khat consumption leading to conflict, crime and a decline in community spirit. Theft of valuable cash crops is common, and there is a high degree of mistrust among the local community. The shift towards a cash-based society has led to the collapse of traditional institutions such as collaborative farming and guarding, and farmers now have to make large investments regarding human capital to manage and guard their cash crop plantations. Despite better health infrastructure, there are health problems caused by excessive khat consumption and the widespread use of pesticides, which affects food, air and freshwater quality (Fig. 3).

kumsaa dabaluu baay'na uummataa hir'iseera. Midhaan nyaataa bakka biraa dhaa gara naannichatti waan galuf midhaan nyaataa gatii salphaan argama. Wabiin nyaataa olaanaa yeroo tahu sooratni uummataa nyaata warshaan qindeeffaman kan akka foonii fi bu'aalee aannanii ni dabalata. Haata'u malee, yeroo hongee fi yeroo gatiin gabaa olka'u wabiinnyaataa hir'achuun ni mul'ata. Gama biraatiin garuu dhiibbaan jireenya hawaasummaa dabaleera. Garaagarummaan dinagdde fi walqixxummaan dhabuu dabaleera. Harka qalleeyyiin oomisha midhaan galii irraa fayyadamoo waan hin ta'iiniif kan duraanii caalaa daran rakkisaa dha. Oomisha Jimaa dabaluun immoo fayyadamiinsi jimaa (jimaa qama'uun) akka dabalu gochuu isaatiin walitti bu'iinsii, fi yakki akka dabalu gochuun wal amantaa, hariiroo fi tumsi hawaasaa hir'ateera. Hanni oomisha midhaan galii kan baratamedha. Jijjiiramni hawaasaa gara oomisha midhaan galii gochuun kun dhaabbileen aadaa fi hawaasaa kan akka diddaaroo, daboo fi gamtaan wal tumsuun midhaan eeguun akka badu taasiseera. Tumsi hawaasummaa kun waan dhabamuuf qonnaan bultoonni oomisha midhaan galii isaanii eeguuf maallaqa guddaa baasu. Bu'uuraalee misooma fayyaa jiraatus bal'inaan itti fayyadamni farra ilbiisostaa qilleensaa fi qulqullina bishaan dhugaatii ni faalu fi akkasumas jimaa heedduminaan fayyadamuun rakkina fayyaatiif saaxileera (Fakkii 3).

Opportunities

- ✔ Forest degradation is slowed down because farmland can provide important tree-related ecosystem services, as well as habitat for some forest species.
- ✔ New coffee plantations may stabilise the local climate and help to buffer against climate variability.
- ✔ Incomes may increase through market integration, and incomes from perennial crops could be more reliable than from annual crops.
- ✔ Market integration may help to boost basic infrastructure such as roads and mobile phone networks, facilitating better access to education and health care.
- ✔ Local people value and know how to grow coffee and khat.
- ✔ Local people, rather than external actors, are the primary beneficiaries of development.

Carraawwan

- ✔ Mancaatiin bosonaa ni hir'ata, sababiin isaas lafti qonnaa tajaajila sirna uumamaa akkasumas faayidaawwan duraan bosona irraa argamu mukeen lafa qonnaa irraa waan argamuuf.
- ✔ Biqiltuun bunaa haaraa dhaabbate dhiibbaa jijjirama qilleensa naannoo irraan gahu kan akka rakkoo roobaa fi googinsa tasgabeessuu ni danda'a.
- ✔ Qindoominni gabaa galii dabaluu ni danda'a. Midhaan waqtii muraasaaf facaafaman irraa argamu caalmaatti omishni midhaan galii gabaa tasgabaawaa fi galii amansiisaa ta'a.
- ✔ Qindoominni gabaa fi dabaluun galii bu'uuraalee misoomaa kan akka daandii fi bilbila socho'aa akka babal'atu ni godha. Tajaajiloonni akka barnootaa fi fayyaas ni dabalu.
- ✔ Haalli fi adeemsa guddina biyyaa dandeetti, beekumsaa fi muuxanno buna oomishuu uummanni naanno kun qabanii fi aadaa bunaa fi jimaa isaan qabaniin walsimata. .
- ✔ Misoomnii fi guddinni naannoo kun namootuma jiraattota naannoo Kanaan kan gaggeffammu waan taheef faayidaan misooma irraa argamus uummatuma naannoo kanaa fayyada.

Risks

✗ Excessive use of agrochemicals could cause pollution and environmental degradation such as reduced water quality, reduced soil fertility and biodiversity loss.

✗ Growing eucalypts can reduce water availability and negatively affect other crops.

✗ A focus on cash crops may undermine livelihood diversification and the production of food crops.

✗ People could become dependent on markets and could be exposed to price fluctuations for agricultural inputs and food.

✗ Local people with insufficient financial capital or land might not be able to benefit.

Sodaa

✗ Heddumminaan keemikaala qonnaa fayyadamuun faalamaa fi mancaatii naannoo kan akka qulqullina bishaanii hir'isuu, gabbina biyyee mancaasu fi lubbuu baay'ee dhabamsiisuu ni mala.

✗ Baargamoo biqilchuun bishaan argamu ni hir'isa, akkasumas biqiltoota biroo ni huba.

✗ Oomisha midhaan galii irratti xiyyeeffannoo kennuun soorata gosa hedduu nyaachuu fi oomisha midhaan nyaataa hanqisuu ni mala.

✗ Hirkattummaan uummataa gabaa irratti waan dabaluuf jijjiiramni gatii gabaa kan galii omiishaaf tahu, omisha oomishamee gurgurtaaf gabaatti ergamu akkasumas midhaan nyaataa ni miidha.

✗ Sababa hanqina dinagdee/maallaqaa fi lafa gahaa dhabuu irraan kan kahe namoonni naannoo hangi tokko fayyadamuu dhabuu malu.

✗ Kophummaa (individualism) fi miti walqixxummaan dabaluu ni mala. Aaadaa n hawaasaa fi malli qonnaa manca'uu mala.

✗ Jimaa biqilchuu fi itti fayyadamni isaa dabaluun rakko fayyaa fi dhiibbaa hawaasa irratti fida.

- ✗ Individualism and inequalities could increase, and cultural traditions and established agricultural practices might be eroded.

- ✗ Increased growth and consumption of khat would have negative health and social impacts.

- ✗ Agrochemical use and decreased dietary diversity would pose health risks.

Implications

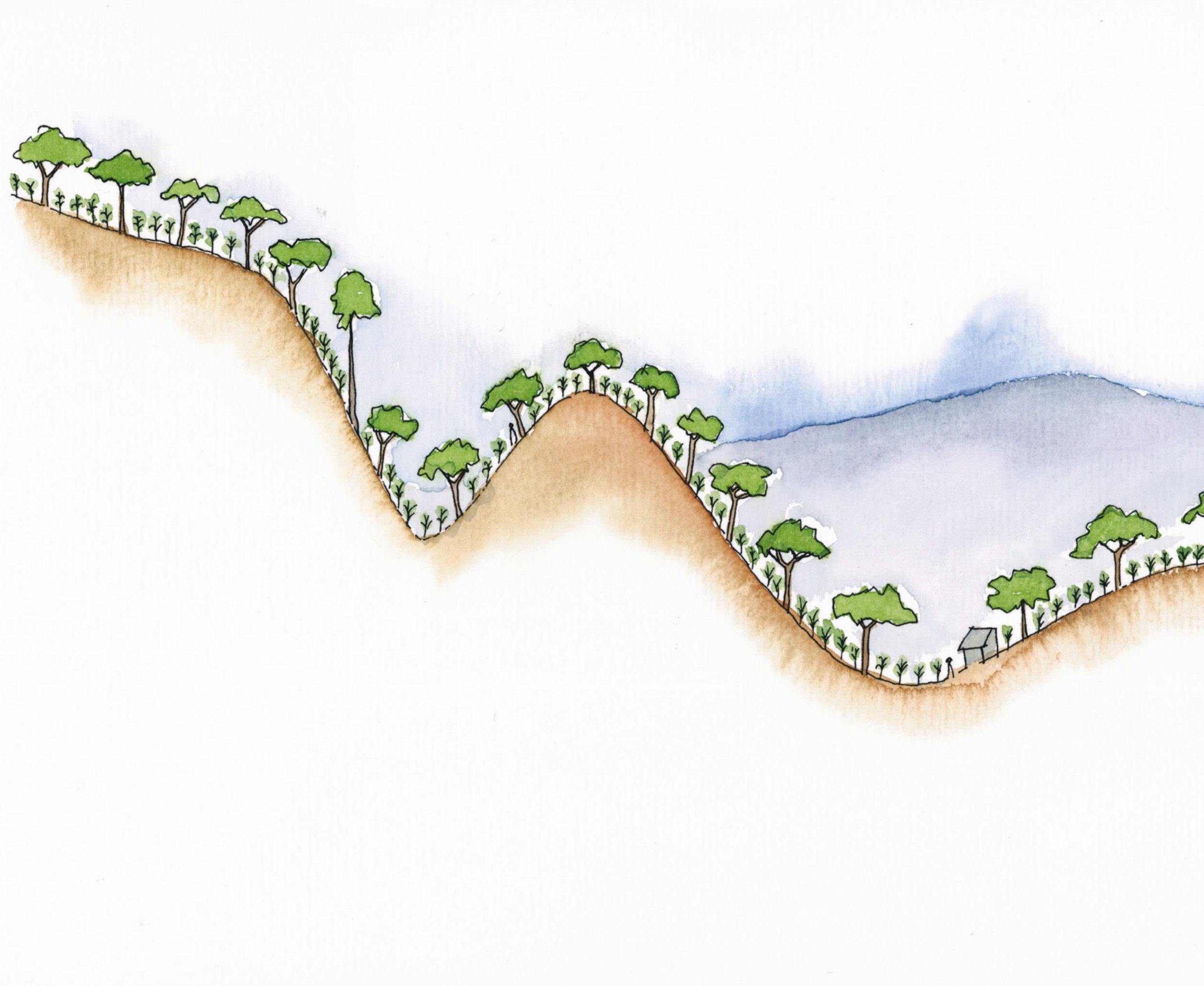
This scenario has the potential strength of providing local people with new, realistic income opportunities. To manage some of the potential risks, it will be important to ensure that eucalypt plantations primarily target degraded areas or marginal land. Similarly, it would be beneficial to develop novel methods of growing coffee and khat that minimise the use of agrochemicals. To ensure that sufficient food is still grown (and not only cash crops), the most fertile land should be used for farming, and homegardens should be developed to become diversified and efficient complementary sources of food. Despite taking such measures, some risks are inherent to this scenario, including market dependency and limited feasibility to be involved for poor and landless people. These risks could be partly addressed via novel financial institutions and insurance schemes. Creating greater awareness about the risks of excessive khat consumption will also be important.

- ✗ Fayyadamiinsi keemikaala qonnaa fi midhaan soorata walmadaalaa tahe soorachuun dhabuun rakkoo fayyaa uumuu ni mala.

Mul'isa

Haala tahuu dandahu kun, carraa galii qabatamaa, haaraa hawaasa naannoof dhiyeessuuf humna ni qaba. Sodaalee hambisuus garuu biqiltuu baargamoo naannoo lafa qonnaaf hin oolle irratti biqilchuuf xiyyeeffannoo kennuu. Haala walfakkaatuun fayyadamiinsa keemikaalaa hir'isuuf jimaa fi buna mala haaraa fi adda ta'e kan itti fayyadama keemikaalota hir'isu fayyadamuun gaarii dha. Midhaan nyaataa gahaa ta'e ammallee akka oomishamu mirkaneessuuf (oomisha midhaan galii qofa osoo hin taane) lafti gabbataan heddumminaan qonnaa midhaan myaataaf tajaaila irra ooluu qaba. Akkasumas qonni qe'ee madda oomisha nyaataa dabalataa gosa garaagaraa (nyaata walmadaalaa) ta'uu qabaata. Tarkaanfiiwwan kana fakkaatan yoo fudhataman illee sodaaa fi rakkowwan garii hambisuu hin danda'amu. Isaan keessaa maxxantummaa gabaa fi akkasumas rakkoon fayyadamummaa warra harka qalleeyyii fi lafa dhabeeyyi ta'aniif wanti raawwatamuu qabu murtaa'aa ta'uu. Sodaawwan kunniin garuu karaa deeggarsa dhaabbilee maallaqaa fi faayinaansii, fi inshuraansiitiin gamtokkeen furuun ni danda'ama. Jimaa hedduu qama'uun rakkoo akka fiduu xiyyeeffanno guddaa itti kennuun hubannoo uummataa guddisuun barbaachisaadha.

Chapter 4



MINING GREEN GOLD: COFFEE INVESTORS

Boqonnaa 4

WARQEE MAGARIISA BAASUU: ABBOOTII QABEENYAA BUNAA

Chapter 4

Mining green gold: coffee investors

Summary

International coffee markets and prices have led the government to prioritise southwestern Ethiopia for export coffee production. Large-scale coffee investors have been given land, because smallholder farmers lack the capacities to produce for export. The landscape now consists of monoculture, high-yield coffee plantations, and little food is produced in the landscape. Both farmland and forest biodiversity have declined strongly because of monocropping and intensive management. Native coffee varieties have disappeared due the influx of high-yield varieties. Farmers have lost land to investors and many received inadequate compensation. Promises by investors of job opportunities and improved public infrastructure have fallen short of local expectations. Poverty, food insecurity, land scarcity and conflicts between coffee investors and local communities have resulted in the emigration of locals. Traditional farming and culture have been lost almost entirely.

Detailed scenario description

Ethiopia has shifted its focus towards large-scale commercial farming and

Boqonnaa 4

Warqee magariisa baasuu: Abbootii qabeenyaa bunaa

Cuunfaa

Fedhiinii fi gatiin Bunaa gabaan idil-addunyaa irratti dabaluu irraan kan ka'e kibba lixa Itoophiyaatti oomisha bunaa gabaa alaatiif oolu akka oomishamu mootummaan dursa akka kennamu godheera. Kana gochuufis qonnaan bultoonni naannoo kanaa lafa xixiqqaa akkasumas humna diinagde oomisha gabaa alaatiif itti dhiyeessan waan hin qabneef Invastaroonni bunaa gurguddon lafti kennameefii jira. Yeroo kun ta'u, teessumni lafaa biqiltuu gosa tokkoo, biqiltuu bunaa oomisha guddaa qabuu fi biqiltuu midhaan nyaataa muraasa qofatu laficha irraa argama. Sababa biqiltuun gosa tokkoo qofti haala ammayyaa taheen qotamuuf, lubbu qabeeyyiin adda addaa lafa qonnaa irraas tahe lafa bosona keessaa ni manca'u. . Gosni sanyii bunaa kan duraan naannoo keessa ture balleeffammee gosa sanyii bunaa oomisha guddaa kennuun bakka bu'eera. Qonnaan bultoota irraa lafti fudhatamee abbootii qabeenyaaf dabarfamee kennamuudhaan qonaan bultoota lafa isaanirraa buqqa'aniif beenyaa gahaa tahuu baatuus ni kennama. Abbootiin qabeenyaa carraa hojii uumuu fi bu'uuraalee misoomaa naanno kanatti fooyyessuuf waadaan kan

Fig. 4. *A street scene in the scenario "Mining green gold: coffee investors".*

Fakkii 4. *Fakkii mul'isa "Warqee magarisa baasuu: Abbootii qabeenya bunaa".*

the export of products to enhance agricultural development and national economic growth. Coffee is the primary export commodity. Due to climate change, there has been a global decline in the supply of coffee, and international demand and market prices for coffee have increased. Because of these conditions the government defined large-scale coffee production destined for the international market as the prime development priority for the

seenan tahus garuu raawwiin isaa fixaan hin guutamne. Hiyyummaan, hanqina wabii nyaataa, hacuuccaa lafaa fi walitti bu'iinsi abbootii qabeenyaa fi hawaasa naannoo gidduutti uumamuu irraan kan kahe namoonni naannoo akka baqatan taasiseera. Malli qonnaa kan aadaa dhabamsiifameera jechuun ni danda'ama.

region. Because the smallholder coffee production system is fragmented and because smallholders lack capital and institutional support to produce coffee for export, large-scale investors are given priority. Smallholder, communal and forest land conducive for coffee investment has been transferred to capital investors for the expansion of large-scale intensive coffee plantations.

The landscape is largely transformed to a coffee production zone, with monocultures of high yielding improved coffee cultivars. Large areas of natural forests and farmland were converted into intensively managed shade coffee plantations, often using non-native shade tree species. Forest biodiversity and ecosystem services have declined rapidly, and it is becoming increasingly difficult for local people to access important forest products. Large-scale forest degradation and hybridisation with the new coffee varieties have destroyed the wild gene pool of *Coffea arabica*. As intensified coffee plantations have expanded into farmland, very little land is left for crop production. Local farmers are left to farm marginalised areas unsuitable for large-scale coffee plantations such as on steep hills and in homegardens. Farmland biodiversity has decreased immensely as a result of the expansion of intensive coffee plantations. This has reduced smallholder farmer opportunities even further – for example, there are too few bees left for honey production. Furthermore, the increased use

Ibsa bal'inaan haala tahuu dandahu (scenario) kanaa

Itoophiyaan xiyyeeffannoo ishee gara qonna daldalaa gurguddo fi oomisha misooma qonnaa dhiyeessi gabaa alaatiif oolurratti xiyyeeffannoo kenniteetti. Midhaan gabaa adhunyaaf dhiyaatan keessaa bunni isa jalqabaadha. Sababa jijjiirama qilleensaatiin kan kahe dhiyeessiin bunaa biyyonni biroon sadarkaa addunyaarratti dhiyeessan hir'ateera. Fedhiini fi gatiin bunaa gabaa addunyaa irratti dabaleera. Sababoota kanarraa ka'uun mootummaan oomisha bunaaf xiyyeffannokennuun iddoo naannichaaf dursa kenneera. Karoora kana fiixaan baasuuf qonnaan bultonni oomisha bunaa hangaan xiqqaa fi addaan fafaca'aa waan oomishaniif karoora dhiyeessi gabaa alaatti ergamuuf humnaa fi dhaabbata waan hin qabneef, abbootii qabeenyaa yokaan investaroota gurguddon akka oomishaniif dursa kennameera. Warroonni sadarkaa xiqqaan oomishan, kan hawaasaa fi lafti bosonaa bunaaf mijataa ta'an abbootii qabeenyaatiif oomisha bunaa sadarkaa olaanaa akka babal'isaniif kennameera.

Haalli teessuma lafaa heddumminaan iddoo oomisha bunaatti jijjiirameera. Kana malees gara sanyii bunaa gosa tokkoo oomisha hedduu kennaniitti jijjiirameera. Bosonni uumamaa fi lafti qonnaa bal'ina qabu gara oomisha biqiltuu bunaa gara sadarkaa ol'aanaatti jijjirameera. Yeroo baay'ee kan uuwwifamu biqiltuu uumamaa

of agrochemicals for intensive coffee production and the expansion of coffee processing has led to polluted soils, groundwater, and rivers.

Due to the expansion of large-scale coffee plantations land has been transferred from local farmers to investors. Although farmers have been offered compensation for their farmland, this compensation has often been inadequate to make a living afterwards. Furthermore, community participation is tokenistic, and the investors do not live up to their initial promises of transferring skills, knowledge and technology to local communities. People's livelihoods have shifted from being subsistence-based towards employment as the major source of income. Employment opportunities mostly consist of daily labour at the coffee plantations. Job security is low, and often, jobs are given to non-locals. Infrastructure improvements have largely benefited investors, for example through better roads, while improvements in public services such as schools, health centres and other social services have been much more limited.

kan hin taaneenidha. Heddumminni lubbuu qabeeyyi bosonaa fi sirni uumamaa daran saffisaan hir'achaa jira.Namoota naannootiif faayidaa bosonaa argachuun cimaa dhufeera. Sadarkaa olaanaan bosona mancaasuu fi gosa biqiltuu bunaa wajjin diqaalessuun waan uwwifamuuf gosti sanyii buna aadaa yokaan koffii arabikaa jedhamu dhabamsiiseera.

Akka lafa qonnaa bunni haala ammayaaheen oomishamuuf lafti qonnaa midhaan nyaataa xiqqoo qofatu hafa. Qonnaan bultoonni naannoo lafa muraasaa fi haallayyaa qofti waan hafeef, oomisha sadarkaa guddaatiif mijaawaa miti. Oomishni biqiltuu lafa qonnaa gosa adda addaa sababa bunni haala ammayyaan biqilfamuuf hir'ateera. Kun immoo qotee bultoota lafa qonnaa xiqqoo qaban ni miidha. Akka fakkeenyaatti oomisha dammaatiif kan barbaachisan kanniisni ni badu. Kanaan dabalata oomisha bunaa haala ammayyaan oomisha dabaluuf galtee keemikaalaa dabaluu fi babal'achuun oomishaa fi qulqullessun bunaa rakkowwan akka faalama biyyoo, bishaan lafa keessaa fi lagaa tii saaxila.

Sadarkaa guddaadhaan buna dhaabuun lafa qonnaan bultoota naannoo irraa gara abbootii qabeenyaatti akka naanna'u taasiseera. Qotee bultootaaf lafa qonnaa isaaniitiif beenyaan kaffalamu illee qonnaan booda jireenya isaanii jiraachuuf gahaa miti. Dabalataan jireenya hawaasaallee rakkisaa kan ta'ee fi abbootiin qabeenyaa kun

The transformation from semi-subsistence farming to large-scale coffee production has left many people landless, and vulnerable with little resilience to cope with shocks. The low wages received from labour have increased poverty among the local population. Decreased living standards and loss of land are causing major conflicts between local people and investors. Food security is mainly ensured through what can be purchased from the market. The low financial capital of people reduces dietary diversity and food security. Land scarcity, a general lack of opportunities, and a growing popula-

waadaa galan kan akka muuxanno, beekumsaa fi teeknoloojii hawaasa naannootiif hin raawwatan. Jireenyi uummataa naannoo kanaa midhaan oomishani jiraachuu irraa gara qonna investaraa keessatti hoji-guyyaadhaan qacaramuutti jijjiirameera. Carraan qacarrii yeroo baay'ee kan hammatu oomisha bunaa irratti hojjetaa guyyaa ta'uudha. Wabiin itti fufinsaan qacaramanii jiraachuus yaraa dha, akkasumas irra caalaa hojiin kan kennamuuf dhalattoota naannoo biraa irraa dhufaniifidha. Bu'uuraalee misoomaa fooyya'uun abbootii qabeenyaa akka fayyadaman taasiseera. Akka fakkeenyaatti daandiin gaarii ta'uu, manneen barumsaa, buufataaleen fayyaa fi tajaajiloonni hawaasaa kan biroo fooyya'uu.

Qonni xixiqqaa gara qonna gurguddaa sadarkaa olaanaa buna biqilchuu jijjiiramuun namoonni baay'een lafa akka hin qabaanne kan taasisee fi rakkoo isaan mudatullee akka hin dandamanneefis kan saaxiledha. Kaffaltiin hojii humnaa xiqqaa ta'uun hawaasa naannoo irratti hiyyummaan akka baay'atu taasiseera.Sadarkaan jireenyaa gadi bu'uu fi lafti dhabamuun hawaasa naannoo fi abbootii qabeenyaa gidduutti walitti bu'iinsi akka uumamu taasiseera. Wabiin nyaataa kan mirkanaa'u wanta gabaa irraa bitaniin qofadha. Dinagdeen uummataa xiqqaa ta'uun nyaata gosa garaagaraa akka hin sooranneef wabii nyaataa hir'iseera. Akka waliigalaatti lafti dhabamuunii fi baay'inni uummataa dabaluun uummatni baadiyyaa irraa

tion, cause mass emigration from the countryside to towns, cities and countries abroad. Overall, social capital is very low. Traditional farming culture has been lost, and the majority of people have no idea how to cope with the change in livelihoods and population growth other than by leaving the area (Fig. 4).

Opportunities

- ✔ The increase in woody vegetation through coffee plantations could mitigate some negative aspects of climate change such as high variability in local climate.
- ✔ Employment opportunities may open up.
- ✔ In theory, there could be technology diffusion, and locals could learn from processes and techniques practiced by coffee investors.
- ✔ Coffee investment can provide foreign currency and increase national economic development.

Risks

- ✗ High use of agrochemicals and coffee processing can cause pollution and environmental degradation such as reduced water quality, reduced soil fertility and biodiversity loss.

gara magaalaa fi gara biyya alaatti akka baqatu taasiseera. Aadaan qotuu kanaan dura ture dhabameera. Namoonni baay'een dhiibbaa jijjiiramni kun haala jireenya isaanirraan gahu fi dabaluu baay'ina uummataarraan kan kahe haala akkamiin akka dandamatan waan hin beekneef godaansaaf ni saaxilamu (Fakkii 4).

Carraawwan

- ✔ Oomisha bunaa keessatti mukeen dhaabuun dhiibbaa jijjiirama qilleensaa kan akka jijjirama haala roobaa fi goginsaa hanga tokko ni hir'isa.
- ✔ Carraan hojii uumamuu ni mala
- ✔ Raawwiin isaa xiqqaa tahuus jiraatonni naannoo muuxannoo, beekumsaa fi teeknoloojii akkasumas mala qonnaa investaroota irraa ni baratu.
- ✔ Invastimantiin bunaa sharafa biyya alaa waan argamsiisuf dinagdeen biyyoolessaa ni guddata.

Sodaa

- ✗ Keemikaala qonnaa baay'inaan fayyadamuu fi adeemsi buna qulqullessu, faalama naannootiif kan akka sadarkaan qulqullina bishaanii hir'achuu, biyyoon gabbatan dhabamuu fi lubbuu qabeeyyiin akka dhabaman saaxiluu ni mala.

- ✗ Endemic trees and shrubs might be lost, including wild coffee and traditional shade tree species.
- ✗ Poverty could increase because of insecure and poorly paid jobs, loss of access to forest and farmland, and high exposure to markets and hence fluctuating food prices.
- ✗ Farmers could become disempowered and dependent on opportunities provided by the investors.
- ✗ Investors may not fulfil promises of knowledge and technology transfer, nor deliver improvements in general infrastructure and services.
- ✗ Conflicts may arise between farmers and investors, and between locals and people from elsewhere.
- ✗ Local traditions, smallholder agriculture, culture, and community cohesion may suffer.
- ✗ Local farmers may be displaced, and land scarcity may promote the emigration to urban areas.
- ✗ Food security may decline, and agrochemical use and loss of dietary diversity may pose health risks.

- ✗ Mukeen uumamaa dhabamuu ni malu, akkasumas sanyiin buna bosonaa kan naannoo kanaa fi mukeen gaaddisaa bunaaf tahan dhabamuu ni malu.
- ✗ Kaffaltiin hojii xiqqaachuu, faaydaan bosona irraa argamu dhabamuun, lafa qonnaa dhabuunii fi hirkattummaa gabaa irraan kan kahe gatiin midhaan nyaataa dabaluurraan kan ka'e hiyyumaa fi beelli ni babal'ata.
- ✗ Qonnaan bultoonni carraa abbootii qabeenyaan isaaniif dhiyaatu irratti hirkataa akka ta'anii fi aangoo akka hin qabaanne taasisa.
- ✗ Abbootiin qabeenyaa ce'umsa beekumsaa fi teeknoloojii akkasumas bu'uuraalee misoomaa fooyyessuu waadaa seenan guutuu dhabuu malu.
- ✗ Aadaa fi duudhaan uummata ni hafa, akkasumas tumsi walgargaarsa uummataa ni diigama. .
- ✗ Buqqaatiin qonnaan bultootaa fi hanqinni lafta qonnaa hawaasni gara magaalaatti akka godaanu taasisa.
- ✗ Wabiin nyaataa daran gadi bu'uu mala, keemikaala heedduminaan fayyadamuu irraan kan ka'ee fi midhaan gosa garaagaraa nyaachuu dhabuun rakkoo fayyaatiif saaxiluu mala.

Implications

A potential strength of this scenario is that it provides opportunities for major economic growth, both in Ethiopia and Jimma zone. However, from experiences in other parts of Ethiopia, not all investment projects always yield the benefits to local people that they promised. For example, technology transfer may be a theoretical possibility, but in practice, it is unclear how relatively poor farmers would be able to adopt the kinds of technologies used by investors. Similarly, the prospect of job opportunities may appear promising in the first instance – but in reality, jobs in similar situations elsewhere have often been unstable and poorly paid. Environmentally, too, it would be important to find ways to reduce the possible effects of pollution resulting from coffee processing. Managing these risks will require careful attention to involving local people in equitable ways from the outset, respecting both land rights and local traditions.

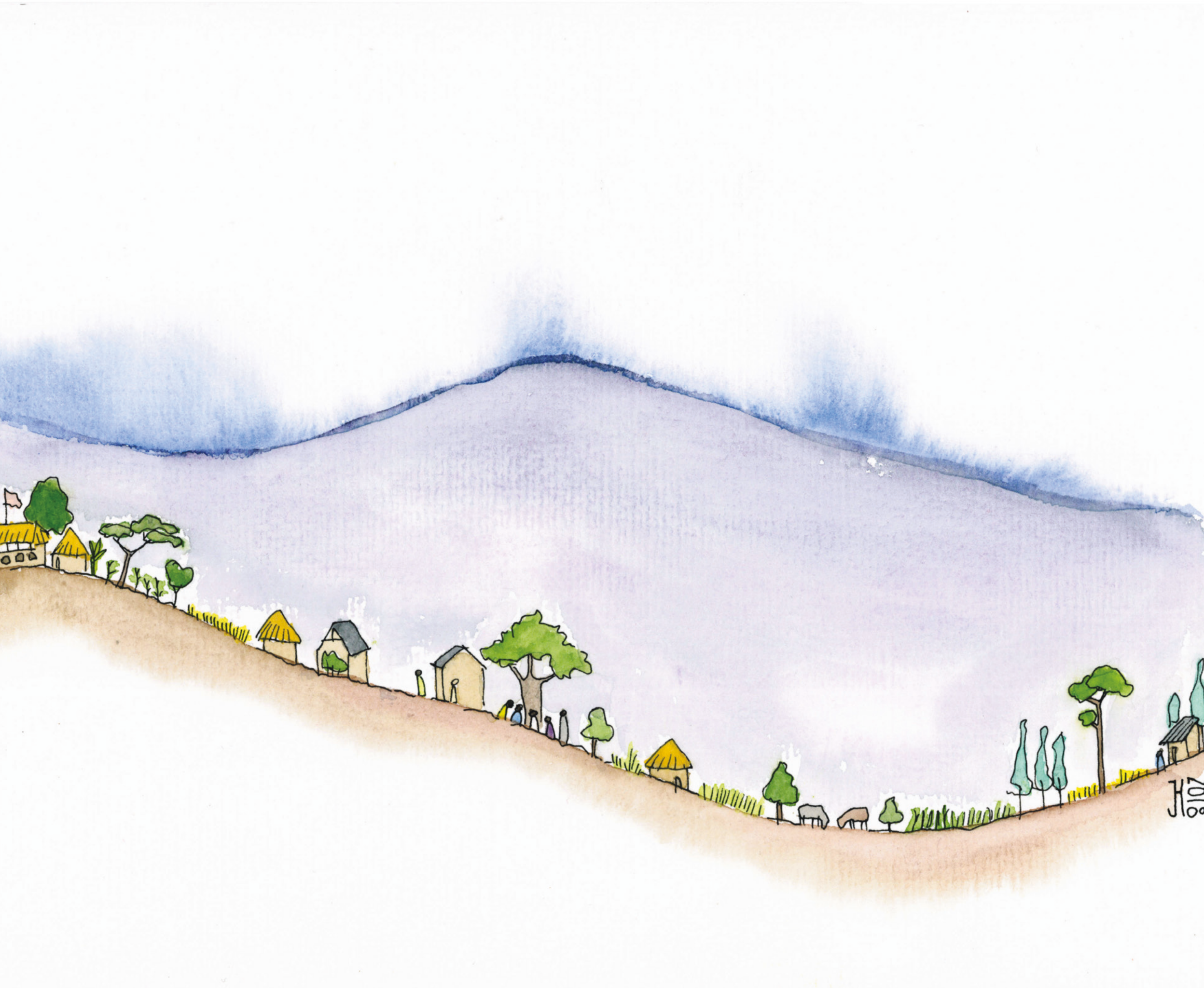
Mul'isa

Ciminni haala tahuu dandahu kanaa kan agarsiisu guddinni dinagdeetiif akka biyyolessattis tahe akka Jimmaatti ni ta'a. Haata'u malee muuxannoon iddo gara garaa Itoophiyaa akka mul'isutti ce'umsi teeknoloojii yaadaan salphaa fakkaatullee raawwiin isaa abbootiin qabeenyaa qonnaan bultootaaf haala kamiin dabarsuu akka qaban ifaa miti. Fakkeenyaaf, teeknolojii gurguddo investaroonni itti fayyadaman haala kamiin qonnaan bultonni harka qalleyyi tahaan akka itti fayyadamuu dandahan ofa miti. Haala walfakkaatuun yeroo jalqabaa irratti carraa hojii gaarii fakkaachuu malus garuu qabatamaan akkuma bakka biroottti mul'atutti kaffaltiin isaa xiqqoo tahuu irra darbee hojiin uumamu dhaabbataa miti. Gama eegumsa naannootiinis faalamni adeemsa buna qulqullessu irraa kan ka'e uumamu hir'isuuf mala barbaaduun barbaachisaadha. Sodaalee kanneen hambisuuf hirmaannaan uummataa investmantii keessatti qabu cimuu qaba, akkasumas abbaa qabeenyumma raga lafaa uummataa cimsuu fi aadaa fi duudhaa uummataa kabajuun barbaachisaa dha.

Chapter 5

COFFEE AND CONSERVATION: A BIOSPHERE RESERVE

Boqonnaa 5



BUNAA FI EEGUMSA NAANNOO: LUBBU QABEEYYII DAANGESSANII TURSIISUU

Chapter 5

Coffee and conservation: a biosphere reserve

Summary

Conventional agriculture in Ethiopia has failed due to land degradation, and has been replaced by sustainable approaches. Global interest in sustainably grown coffee is increasing. A biosphere reserve has been established that combines sustainable agriculture, eco-coffee production and tourism opportunities. The landscape around a core area of sustainably managed forest consists of a mosaic of diversified farmland and forests. Farmland biodiversity has recovered due to varied habitats and sustainable agricultural practices. Forests and wildlife are managed by the community, and forest biodiversity is relatively high. All people including the poor produce their own food as well as products for export, supported by a revival of traditional cooperative farming arrangements. Economic growth is slow but steady and equitable, and living conditions slowly improve. Household resilience is high due to strong social capital, diversified farming and new income opportunities from tourism.

Detailed scenario description

Years of conventional intensification supported by the green revolu-

Boqonnaa 5

Bunaa fi eegumsa naannoo: Lubbu qabeeyyii daangessanii tursiisuu

Cuunfaa

Sababa dhiqama biyyee irraan kan ka'e haalli qonnaa akkuma duraan baratameen qotuudhaan bu'aan argamu waan gadi bu'eef mala addaa walitti fufinsa qabuun akka bakka bu'u taasifama. Fedhiin buna haala naannoo wajjin walsimaten oomishame fi kan keemikaalota hin qabne gabaa addunyaa irratti dabalaa dhufeera. Bakkeen kunuunsa Lubbu qabeeyyii jedhamanii beekamtiin kennameef tursiisuun qonna, oomisha bunaa fi carraa tuurizimii akka jiraatu taasiseera. Bakkewwan kun mukeelii fi qonnawwan garaa garaa haala walsimateen wallin kunuunfamu.. Bosonnii fi bineensonni bosonaa hawaasaan kunuunsi taasifamuuf baay'ina qaba. Namoonni baay'een hiyyeeyyii dabalatee soorata mataa isaanii akkasumas kan gabaaf dhiyaatullee ni oomishu. Bayyaannachuu abbootii warraa daran olaanaadha. Sababiin isaas wabummaan hawaasaa, qonna garaagaraa fi tuurizimii irraa galiin haaraa argamu waan dabalaa dhufeef.

IIbsa bal'inaan haala tahuu dandahu (scenario) kanaa"

Qonni baratame Itoophiyaa keessatti qabeenya uumamaa hir'iseera. Gab-

Fig. 5. *A street scene in the scenario "Coffee and conservation: a biosphere reserve".*

Fakkii 5. *Fakkii mul'isa "Bunaa fi eegumsa naannoo: Lubbu qabeeyyii daangessanii tursiisuu".*

tion have degraded natural resources throughout Ethiopia. Reduced soil fertility, large-scale soil erosion and persistent droughts made it impossible to grow enough food to feed the Ethiopian population. Due to pressure from environmental NGOs and local resistance to the failing strategy of conventional agriculture, the government has transformed its agricultural policy towards sustain-

binni biyyee hir'achuun dhiqama biyyee sadarkaa olaanaa fi hongee irra deddebiiirraan kan ka'e oomishni nyaataa gahaan akka hin oomishamne fi wabiin nyaata uummata biyyattii akka hin mirkanoofne taasiseera. Naannoo irra dhiibbaan waan jiruuf waajjiraaleen kan akka miti-mootummaa fi hawaasni naannoo qonni baratame akka hafu taasiseera. Kanarraan kan ka'e tarsiimoon moo-

able land management. Biosphere reserves are being established across Ethiopia to mainstream approaches that integrate conservation of natural habitat and sustainable food production. This shift was facilitated by increasing international demand for sustainably produced agricultural products, as well as the active participation of locals in the transformation process. In the southwest, the *Buna Duga Biosphere Reserve* has been established. This reserve emphasises not only the traditional culture of growing and drinking coffee, but also good social relationships, which are the central pillar of the newly established community-based management of the reserve.

The landscape consists of a core zone of unused natural forest, a buffer zone for low-intensity production of local coffee, wild honey, and other forest products, and an outer area with a mosaic of cropland, pastures and tree plantations. Planting of native tree species for timber, firewood and shade for coffee, is highly encouraged, and care is taken that people retain their uses and knowledge of local plants. The land is farmed using a mixture of traditional agricultural practices and modern techniques such as crop rotation, intercropping with legumes, soil and water conservation, and composting. Livestock production and communal grazing are maintained and also provide manure for fertilising the fields. People grow a wide variety of fruit and veg-

tummaa gara kunuunsa qabeenya uumamaa fi lubbu qabeeyyiiwwan uumammaa adda addaa kunuunsutti xiyyeefateera. Haaluma kanaan tarsiimoon kunuunsa lubbu qabeeyyii uumama fi omisha midhaan nyaataa gahaa ta'e haala naannoo wajjin walsimatee fi walitti fufinsa qabuun akka oomishamu adeemsa ijoo ta'eera. Jijjiiramni kun dhufuu kan danda'e, fedhiin midhaan haala naannoo wajjin walsimatee omishamu waan dabalee fi uummannii naannoos jijjiramni akkasi kun aka dhufu dhiibbaa waan godhaniifi. Kanaaf, Kibba lixaa biyyattitti *Iddoon Tursiisaa fi kunuunsa Lubbu Qabeeyyii Bunaa Dhugaa (Buna Duga Biosphere Reserve)* jedhamu hundeffameera. Iddon Tursiisni lubbu qabeeyyii kun malaaadaa dhaan buna biqilchuu fi dhuguun dabalatee walitti dhufeenyi hawaasaa gaarii akka jiraatu fi uummannis kunuunsa naannoo kana keessatti akka si'aayinaan hirmaatan kan taasisuu dha.

Teessumni lafaa godinichaa kun bakka sadiiti kan qoodamu tahee, inni duraa, handhuurri yokaan walakessi isaa bakka bosonni uumamaa tuttuqaa namaa irraa adda tahe kan eegamu dha. Inni lammaffaan, lafti bakka handhuura kanatti aanee jiru immoo mala aadaatiin buna oomishuuf, damma bosonaa fi bu'aaleen muka bosonaa kan biroon bakka itti oomishaman taha. Inni sadaffan, qarqarri teessuma lafa kanaa immoo bakka midhaan fi mukeen adda addaa haala walmakaan kan argaman ta'u. Xaawulaa, qoraan ak-

etables in their homegardens. Due to these sustainable practices, farmland biodiversity is recovering from earlier impacts of fertilisers and pesticides, and important ecosystem services provided by farmland, such as soil fertility, are restored.

The management of the biosphere reserve is realised through strong community participation, which also fostered the acceptance to establish a protected core zone of natural forests. Although some forest clearing was unavoidable to accommodate the growing population in the past, the core zone now is a haven for many rare and endangered species, and also is a refuge for the wild gene pool of *Coffea arabica*. To reduce negative impacts of wild crop-raiding animals, jobs as wildlife guards have been provided through community-based arrangements, especially to local people without access to land. The wildlife guards are responsible to help scare off crop-raiding animals, provide information to farmers on how to best protect fields, and where necessary reduce the populations of the most problematic species such as baboons and bush pigs via controlled culling measures. Community-based management of the reserve supports the continuation of semi-subsistence farming and provides job opportunities for landless or poor people and minorities.

Social capital is high, and traditional collaborative agreements, such

kasumas mukeen gaaddisa bunaa ta'an uumammaan kan naannoo kanatti argaman akka dhaabbamanii biqilfaman daran jajjabeeffamu. Akkasumas, uummanni beekumsaa fi itti fayyadama muqueen uumamaa naannoo kanaa comsanii akka qabatanii akka itti fufan in jajjabeeffamu. Lafti qonnaa mala aadaatiin kan qotamu taheeteeknikni qonnaa kan akka midhaanif muqueen walitti makuun qotu, biqiltuu naannessanii biqilchuu, gosa midhaan adda addaa wal keessatti makanii biqilchuu, eegumsa bishaanii fi biyyeef taasisuu fi kompoostii fayyadamuu dha. Horsiisni loonii fi bakki dheedichaa kan eegamanii fi itti fayyadaman tahee dikeen horsiisa looni irraa argamus gabbina lafaatiif akka xaa'ootti ni tajaajila. Kuduraa fi muduraa garaagaraa qe'ee keessatti hawaasni ni biqilcha. Haala kanaan qonni fi kunuunsi naannoo kun itti fufinsaan hojiirra oolun kun lafti duraan xaa'oo fi farra ilbiisotaa manca'an deebi'anii ni lalisu. Kunis tajaajilla hawaasni eegumsa naannoo irraa argatu adeemsa keessa ni foyya'a.

Bakki eegumsaa fi tursiisa lubbu qabeeyyii kun kan eegamu hawaasa naannoo bal'inaan irratti hirmaatchisuudhaan waan taheef uummannis fedhii isaatiin bakki kunuunsaa fi tursiisa lubbu qabeeyyi kun akka hundaahu fi bosona uumamaatiif kunuunsi akka godhamu ni taasisa. Dabaluu baay'ina uummataa waliin walqabatee muramu mukaa hambisuu baatullee, handhurri bosona

as didaro, have received renewed attention and have facilitated the transition process. Conflicts are usually solved within the community. Cultural integrity remains high and people are in good spirit. As an important part of their cultural identity, people grow and eat the majority of their own food. In addition, coffee and nature-based tourism are beginning to develop, bringing in extra money. The majority of people are now able to live in houses with metal roofs, have access to health and education, and are able to buffer their livelihoods during difficult times. Women in the region are empowered through inclusion in decision-making processes. This has led to higher acceptance of family planning and smaller family sizes, reducing population growth in the long-term. Despite limited economic growth, equality among people is high, and diversified farming combined with

kanaa jiraachuun mandhee mukeen uumamaa fi kan naanno kanatti qofa argaman kunuunsuufkan fayyadu ta'uurra darbee eegumsaa fi kunuunsa gosa buna bosonaa *Coffea arabica* jedhamuuf mandhee ta'eera.

Jabinni fi tumsi walitti dhufeenya hawaasaa olaanaadha. Tumsi hawaasaa kan aadaa kan akkadaboo fi didaaroo xiyyeeffannoo akka itti godhamu kan taasisee fi adeemsa ce'umsaa kunis akka saffisu godheera. Yeroo baay'ee walitti bu'iinsi hawaasaan kan furamu ta'a. Quunnamtiin hawaasaa fi aadaan uummataa cimaadha. Kana malees fedhii olaanaa waliif qabu. Akka eenyummaa aadaa tokkootti namoonni danuun midhaan ofiif oomishan sooratu. Dabalataan bunnii fi tuurizimiin qabeenya uumamaa hundeffatte uumamu babal'achaa waan dhufuuf, maallaqa dabalataa isaaniif argamsiisa. Namoonni baay'een mana jireenyaa qorqorroo keessa kan jiraatanii fi tajaajila barumsaa fi fayyaa argachuu ni danda'u, akkasumas hambaa kewwatanii yeroo rakkoo jireenya isaanii ittin jiraachuu ni danda'u. Eegumsa naannoo keessatti hirmaannaani fi aangoon murtii murteessuu dubartootaa cimeera. Kana waan ta'eef, karoora maatii akka fayyadamanii fi maatii xiqqaa akka qabaatan taasiseera. Kunis yeroo dheeraatti baay'inni uummataa hir'isuuf tumsa godheera. Dinagdeen uummataa suuta kan guddatu ta'ullee walqixxummaan diinagdee uummata giddu jiru olaanaadha. Qonna midhaan gosa garaagaraa oomishuu

high social capital increases household resilience to climate change and other potential problems, such as market fluctuations or crop diseases (Fig. 5).

Opportunities

- ✔ Sustainable resource management and improved soil and water conservation can revert environmental degradation.
- ✔ Forest cover and trees in farmland mitigate some negative aspects of climate change.
- ✔ A diversified landscape supports high biodiversity and generates many different ecosystem services.
- ✔ Diversification involving crops, forest products and ecotourism can stabilise livelihoods and incomes.
- ✔ International marketing of certified organic products can increase incomes.
- ✔ Creation of the biosphere reserve increases stakeholder interactions locally and beyond, including with national and international NGOs, universities, and green companies.
- ✔ Human health benefits may arise from organic production and diversified diets.

fi hariiroon uummata giddu jiru cimaa waan taheef rakkowwan kan akka jijjiirama qilleensaa fi qaala'uu gatii gabaallee akka dandamatan taasiseera (Fakkii 5).

Carraawwan

- ✔ Eegumsi qabeenya uumamaa walitti fufaa fi kunuunsi biyyof fi bishaani foyya'uun dhiibbaa hamaa naannoo ni haambisa.
- ✔ Uwwisni bosonaa fi mukeen jiraachuun dhibba jijjiirama qileensa hanga tokko ni haambisa.
- ✔ Biqiltuu fi bosona garagaraa naannoo kana keessa jiraachuun eegumsa lubbuu qabeeyyii fi faayidaa isaan irraa argamu ni dabala.
- ✔ Oomishaa midhaan garagaraa, fayyidaa bosonaa akkasumas ikko turiiziimiin babal'achuun haala jireenyaa fi galii ni tasgabeesa.
- ✔ Omishni haala kunuunsa umamaan omishame fi sartafikeetii argate kun gabaa iddil-addunyaatti beekamti argatee galii ni dabala.
- ✔ Hundeeffamni bakka tursiisa lubbuu qabeenyii kun hariiroo fi walitti dhufeenya qooda fushattottaa giddu jiru sadarkaa biyyolessaa fi idil-addunyaa giddu jiru kanneen akkadhaabbata miti mootummaa, yunivarsiitii fi kaampaanoota naannoo magarisaarratti hojjetan ni cimsa.

- ✔ Culturally valued traditions related to smallholder farming are maintained.
- ✔ Social cohesion, equity and cooperation within the community are high.

Risks

- ✗ Economic development might be slower than in some other scenarios.
- ✗ Obtaining organic certification status may be difficult and smallholders will require assistance.
- ✗ Land scarcity and forest protection could make it difficult to produce surplus quantities for sale.
- ✗ Small-scale farming is highly labour-intensive.
- ✗ This scenario hinges on local people's capacity and willingness to self-organise as a community.

Implications

This scenario provides a major opportunity for sustainable development, both in socioeconomic terms, but also to protect Ethiopia's unique biodiversity. Capitalising on this opportunity, however, will require an inclusive, collaborative and proactive approach that brings together local people,

- ✔ Nyaata garagaraa soorachu irra kan ka'e fayyuman ummataa ni foyyaa'a.
- ✔ Aadaa fi duudhaan uummataa akka kabajamu taasisa
- ✔ Hariiroo hawaasaa, wal qixxuma fi tumsii hawaasaa keessatti daraan olaanaadha.

Sodaa

- ✗ Guddini dinagdee haala tahuu dandahuu kan biroo wajjin walbira qabnee yoo ilaalluu ariifataa miti.
- ✗ Sartafikeeti oomishaa haalaa umamaa argachuun ulfaata waan ta'eef, qonnan bultotni grgaarsa qaama biro ni barbaadu.
- ✗ Hanqinni lafaa fi eguumsa bosonaa gochuun oomishaa gaha omishuuf rakkoo ni umaa.
- ✗ Milkaa'inni haala tahuu dandahuu kanaa fedhii fi dandettii walguurmeessuu irrati kan hundaa'e dha.

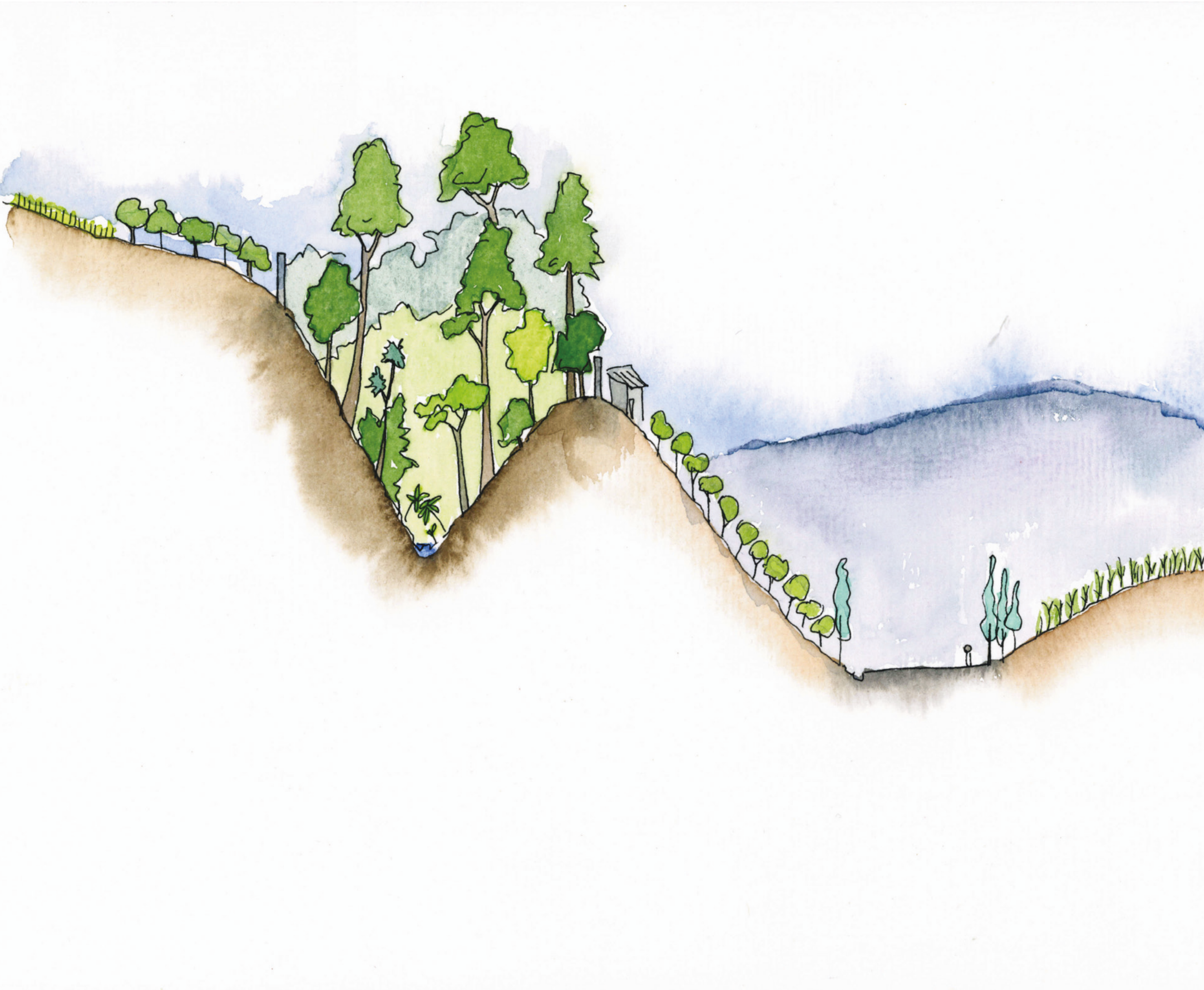
Mul'isa

Haala tahuu dandahu kun misooma walirraan cinnee gama hawaas-dinagdee akkasumas eegumsa lubbuu qabeeyyii uumamaa kan naannoo kana qofatti argaman eeguuf carraa ni kenna. Carraa kana itti fayyadamuuf garuu, adeemsa hirmaachisaa tahee fi dursanii tarkaanfii fudhachuu

policy makers, and non-government experts. Key challenges relate to the development and implementation of appropriate land use strategies, including modern organic farming methods and the development of tourism as appropriate. This task is not only managerial, but hinges on the involvement and empowerment of local communities. Eco-friendly certification of local products – including coffee, honey and food crops – also needs to be a high priority, and will require the strengthening of international linkages. A potential risk of this scenario is that economic development initially may be slower than in some other scenarios. For this reason, this scenario requires a long-range and holistic perspective that recognises the long-term benefits of increased resilience and sustainability for local communities.

kan gaafatu tahee qooda fudhatonni kan akka uummata naannoo, warren seeraa fi tarsiimoo qophessan akkasumas dhaabota miti-mootummaa adda adda waltumsanii hojjechuu gaafta. Adeemsa fayyadamiinsa lafaa, malaa qonnaa orgaanikaa fi tuurizimi dabalatee hojii irra oolchuun danuu barbaachisaa dha. Hojii kun hojii bulchiinsa qofaa osoo hin taane, hawaasa naannoo aangeessu ni dabalata. Sartafikeetii oomishni midhaanii, bunaa, fi dammaa kun kunuunsa naannoo umamaawajjin akka walisimate oomishame kan argasiisu sadarkaa idil-adunyaarratti hariiroo hundessuun raga kana argachuun dursa kennamufin barbaachisadha. Sodaan haala tahuu dandahuu kanaa kan maddu guddinni diinagagdee haalota tahuu dandahan kan biroo wajjin yoo madaallu suuta jedhaa dha. Sababa kanaaf, haalli tahuu dandahuu kun faayidaa yeroo dheeraa, walirraan cinne fi bu'aa inni dandamannaa uummataaf kennu huubachuu fi xiinxala keessa galchuun barbaachisaa dha.

Chapter 6



FOOD FIRST: INTENSIVE FARMING AND FOREST PROTECTION

Boqonnaa 6

DURSII SOORATA: HAALAAN QOTUU FI EEGGUMSAA BOSONAA

Chapter 6

Food first: intensive farming and forest protection

Summary

The government has pushed for commercialised food production in southwestern Ethiopia and has protected existing forests to meet its global commitments. Climate change has made coffee production unviable in the southwest, and food production elsewhere in the country is also failing. Large amounts of food (primarily for sale within Ethiopia) are now produced in the southwest through

Boqonnaa 6

Dursii soorata: Haalaan qotuu fi eeggumsaa bosonaa

Cuunfaa

Mootummaa biyyaa Itiyoophiyaa lixaa Oromiyaattii oomishaa midhaan nyaataa (soorata) daldalaa oomishuudhaaf tattaffii guddaa godheera. Kanumaan walqabatee bosonni amma jiru akka kunuunfamee kaayyoo eeggumsa bosonaa galmaan akka gayuu godhaa jira. Sababa dhiibbaa jijjirama haala qillensaarraan kan ka'e naannoo kibba lixaatti oomishni bunaa akka akka badu godhee jira. Gama biraatiin immoo bakkeewwan biyyattii biro keessattis oomishni midhaan nyaataa gadi bu'ee jira. Oomishni midhaan nyaataa heedduminaan mala qonna ammayyaahe fi qonna gurguddodhaan fayyadamuun omishamee gabaadhaaf (Gabaa biyya keessaaf kan oolu) kibba lixaa Itiyoophiyaattii oomishamaa. Oomishni kuduraaf fuduraa, naannoo jiidhinnaa guddaa qabutti immoo qonna midhaan boqqolloo fi xaafii, dabalataani lafa kaloo gabbisa loonif oolu heedduminaan naannoo kana keessatti mul'atu. Iddoon hafe immo kan bosonaan uwwifamee tuttuqaa namaa irraa dhorka tahee ciminaan akka eegamu ta'ee jira. Mala qonnaa ammayyaahe fayyadamuurran kan ka'e akaakuun lubbu qabeeyyii lafa

Fig. 6. *A street scene in the scenario "Food first: intensive farming and forest protection".*

Fakkii 6. *Fakkii mul'isa "Dursii soorata: Haalaan qotuu fi eeggumsaa bosonaa".*

intensive, large-scale agriculture. The landscape consists largely of fruit and vegetable plots, maize and teff fields in the wetlands, and pastures for beef fattening. Remaining forest areas are strictly protected and not accessible to locals. Farmland biodiversity has plummeted due to intensive management, but forest biodiversity remains high. Some farmers are better off, but

qonnaa daran ni xiqqaata. Haata'uti garuu, sababa eegumsa bosonaarraan kan ka'e akaakuun lubbu qabeeyyii bosona keessaa akkuma jirutti itti fufa. Qonnaan bultoonnii muraasni haala fooyya'aa irrattii argamuu, garuu, namoonni lafa hin qabneefi warren carraa mala qonnaa ammayyaa fayyadamuu hin dandeenye hiyyummaadhaaf ni saaxi-

poverty is widespread among those who lost land and could not capitalise on new agricultural opportunities – their food security is low. Community resilience is limited due to fluctuations in climate and markets, and many poor people emigrate to urban areas.

lamu- wabii nyaataasaanii mirkaneefachuu hin dandahani. Dandettin dhiibbaa jijjirama qilleensaa fi qaalayinsa gatii gabaa dandamachuu uummata ni xiqqaata, namoonni harka qalleyyii heeddunis gara magaalaatti ni goodaanu.

Detailed scenario description

Due to climate change, coffee production has shifted to higher altitudes, and growing coffee has become unviable in most parts of southwestern Ethiopia due to frequent outbreaks of coffee pests and diseases. At the same time food production in the dryer parts of Ethiopia has seen a sharp decline due to increasingly frequent droughts. Given declining coffee production locally and stagnating food production in other parts of the country, the Ethiopian government declared the southwest a priority area for producing crops, fruit, vegetables, and beef. As a consequence, a rapid transition towards industrialised agriculture with high-yielding varieties and high agro-chemical input was realised. Modern agriculture almost completely replaced traditional small-scale farming and eroded local knowledge. The boost in land use intensity and efficiency required large-scale land consolidation, including the clearing of woody vegetation and cropland expansion. Flat areas including drained wetlands are now dominated by large cereal fields. The hills and steeper slopes are used for

Ibsa bal'inaan haala tahuu dandahu (scenario) kanaa

Sababa jijjiirama qilleensaa irraa kan ka'ee, oomishinii bunaa gara lafa gaarattii olsiqee jira, akkasumas sababa babal'achuu dhukkubni bunaa irraan kan ka'e oomishinii bunaa kibbaa lixaattii naannoo hedduu irraa bada. Bifuma walfakkaatuun sababa babal'ina goginssaa irraa kan ka'e oomishni midhaan nyaataa bakkewwan biro biyyattii keessaa baayyee gadii bu'a. Sababa oomishni bunaa naannoo kanaa hir'atuuf, akkasumas oomishni midhaan nyaataa iddoo biroo waan hir'ateef, mootummaan karooraa fi xiyyeffannoo isaa gara kibba lixa biyyatti gochuun oomishaa midhaan nyaataa, fuduraa fi kuduraa akkasumaas sangaa gabbisuudhaaf akka oomishamu godhe. Haaluma kanaan, qonni industurii akka babal'atu, sanyii filatamaa fi xaa'oo fi keemikaalli bal'inaan akka fayidaara oolu taasifameera. Qonnii ammayyaa mala qonnaa aadaa bakka waan bu'ees muuxanno fi ogummaa aadaa uummataa akka baduu taasisee jira. Fedhiin oomisha dabaluu fi barbaachisummaan lafa qonnaa babal'aan jiraachuun bosonni ciramee lafti qonnaa gara bosonaatti akka siqu taasi-

intensified fruit and vegetable production, commercial honey bee keeping and beef fattening. The transition of the farming system was facilitated by cooperatives that provided infrastructure for inputs, marketing and financial support. Farmers had to specialise and commercialise their production, now using large amounts of pesticides, artificial fertilisers, seeds and fodder. Local crops have been replaced by fast growing new varieties that require large amounts of pesticides and fertilisers. Farming has been mechanised as much as possible, with government-owned tractors being available for hire to work the larger stretches of cropland in the flat areas. The intensification of agriculture has led to a deterioration of natural capital in farmland, decreasing soil fertility even further, and hence increasing the dependence on external inputs and new crop varieties. Freshwater sources are polluted from agrochemicals. Virtually everything harvested is sold to markets. Storage facilities and processing plants have been set up in the larger towns.

To limit further expansion of farmland, to reduce potential impacts of climate change and to satisfy international pressure for nature protection, the remaining patches of natural forest are put under strict protection. The resulting protected areas have been partially fenced to limit illegal forest use but also to reduce crop raiding from wild animals. Despite strict protection, the fragmentation and

seera. Naannoowwan diriiraa ta'aanii jallii isaanii caffaa ta'ee oomishaa midhaaniitii hojii irra oolanii jiruu. Naannoo dirree hin ta'iinii fi bakkeewwan hallayaa ta'an oomisha fuduraa fi kuduraa, oomisha dammaa, fi sangaa furdisuuf oolee jira. Waldaaleen hojii gamtaa dhiyeessi akka xaa'oo, tajaajila gabaa fi liqii waan kennaniif malli qonnaa gara ammayaahuti ceheera. Qonni lafa diriiraa tiraaktera mootummaan dhiyeessun qotamu.

Qonni hammayaahuun qabeenya uumamaa lafa qonnaa irra jiru gadii hir'iseeraa, keemikaalli qulqulina bishaanii faaleera, oomishummaa biyyee waan hir'iseefi qonnaan bultonni omisha isaanii dabaluuf xaa'oo fi keemikalota dabalataa irratti hirkattummaa isaanii dabaleera. Hedduun oomishaa qonnaa kun gara gabayaatti dhiyaata. Meshaan kuusaa midhaanii fi warshaaleen midhaan nyaataa qindessan magaaloota gurguddoo keessattii hundeefamaniiru.

Bal'innii lafaa qonnaa dhaabuuf, dhiibbaa jijjiramaa qilleensaa hir'isuudhaaf akkasumas dhiibbaa mootumonni addunyaa eeggumsa qabeenya uumamaaf kennanirraa kan ka'e hammii bosona hafee eeggumsa cimaadhaan kan eegamud dha. Hammi bosonaa eeggumsa jalaa jiruu ittii fayyadama bosonaa seeraan ala ta'ee hambisuuf akkasumas dhiibbaa bineensa bosonaa hirdhisuus dallaan itti ijaaramee eegama. Bosonnii haala gaaridhan kan eeggamuu taatullee bosonnii eeggumsaa jala jiru waan

isolation of remnant forest patches has led to further decreases in forest biodiversity. Large-scale deforestation combined with intensification of agriculture has led to widespread soil erosion, which the government now tries to tackle by building dams and water channels.

Large-scale land consolidation has increased overall inequality in the region, and left many people without access to land. While farmers who managed the transition and received land are relatively well off, others remain poor. Some managed to get employment on other people's farms, but opportunities are limited because of high levels of mechanisation and a focus on efficiency. Other people have emigrated to towns in an attempt to make a living by working in one of the many food processing factories. With modernisation, individualistic behaviour has increased, and cultural identity and community cohe-

bittinnayee argamuuf lubbuu qabeeyyiin bosona keessaa akka hir'atuu godhee jira. Ciramuun bosonaa fi babal'achuun qonna ammayaahe kun dhiqama biyyeef saaxileera, haa ta'u garuu mootummaan rakkowwan kana furuuf hidhaa fi bo'oo bishaanii ijaaruudhan dandamataa jira.

Lafa bal'aa tahee namonin muraasni qabachurraan kan ka'e walqixxumman namoota giddu jiru akka hir'atu taasisee waan jiruuf namonin heeddun lafa dhabeeyyi tahu. Qonnaan bultoonnii jijjiramattii fayyadamuu danda'aaniifi lafa fudhataan jireenyaa fooyya'aa keessa kan jiraatan yoo ta'uu, kanneen hafan hiyyeeyiidha. Gariin isaanii lafa qonnaa nama biroo irrattii qacaramanii hojjatuu, haata'uumalee, sababa maallii qonnaa makaanaayzeshini (traktara) ta'ee fi bu'aa qabeessuummaa irrattii waan fuullefateef, carraan hojii argachuu isaanii baay'ee xiqqaadha. Namoonnii hedduun immo hojii warshaa keessatti qacaramuuf jecha gara magaalaatti ni godaanu. Sababa qaroominni ammayyaa gudaataa dhufeef, qofummaan ni dabala, aadaa fi hariiroon hawaasaas akka baduu taasiseera. Yeroo kana namoonnii hedduun nyaata mala ammayyaatiin warshaa keessatti oomishamee qophaa'e kannen akka foon fi aannan bakka birootti oomishame qofa soorachuuf ni dirqamu. Kana waan taheef gosti nyaataa addaa addaa fi madaalamaa tahee lafa qonnaa irraa osoon taane gabaadhaa bitamee kan sooratamu taha. Kunis haala gabaa

sion have been eroded. People now mainly eat purchased and processed food, including processed meat and dairy products imported from elsewhere. Dietary diversity no longer comes from diversified cropping, but depends on what is available and affordable on the market. Due to specialisation and commercialisation, the resilience of farmers is primarily based on financial capital. However, due to crop specialisation and the loss of many ecosystem services, farmers are not resilient to climate change, and, despite increased financial capital, some are forced into debt after unfavourable years with low harvests. Moreover, people are strongly affected by market price fluctuations to sell harvests and buy food, which further decreases their resilience. Population growth remains high, particularly among the poor. Many of the poor emigrate to towns and cities, putting additional pressure on increasingly large urban slums (Fig. 6).

Opportunities

- ✔ Forest protection is good for biodiversity and can help to mitigate the negative effects of climate change.
- ✔ Increased production of food crops and beef increases incomes and food security.
- ✔ Resource allocation is efficient because of the clear segregation of production and conservation areas.

fi dandeetti (qabeenya maallaqaa) irratti hundaa'a. Sababa qonna gosa tokko fi ammayahee taheef, dandeettin dandamannaa qonnaan bultootaa qabeenya maallaqaa isaanirratti hundaa'a. Haata'uu malee, sababa midhaan gosa tokko qotamuu fi faayidaan bosona irraa argamu hir'ateef, qonnana bultotni dhiibbaa jijjirama qilleensaa dandamachuu hin dandahani. Qabeenya maallaqaa qabaatanille, namoonni muraasni bara omishni gahaan hin oomishamne liqii keessa ni galu. Dabalataaanis, sababa gatiin gurgurtaa midhaan oomishamee fi gatiin bittaa midhaan nyaataa bitamu jijjiramuuf namoonni heeddun dandeetti rakkoo dandamachu hin qabaatani. Baay'innii ummataa daran dabaleera, keessattuu hawaasa harka qlleeyyii ta'aan keessatti. Namoonni harka qalleeyyin hedduun isaanii gara magaalota gurguddoottii ni godaanu, kunis naannoo rakkoo baay'ina namaa magaalota keessa jiru daran ni hammeessa (Fakkii 6).

Carraawwan

- ✔ Eeggumsii bosonaa kunuunsa lubbuu qabeeyyif ni fayyadaa akkasumas rakkoo jijjiramaa qilleensaa furuuf ni gargaara
- ✔ Oomishni midhaan nyaataa fi loon horsiisuu dabaluun galii fi wabii nyaataa ni foyyessa.
- ✔ Lafa oomisha qonnaa fi lafa eegumsa bosonaa adda baasuun itti fayadama lafaa ni foyyeessa.

✔ Productive new agricultural technologies and practices might spread.

✔ Development of the region is driven by local people, to the benefit of many of them.

Risks

✗ The high use of agrochemicals can cause pollution and environmental degradation, including reduced water quality, reduced soil fertility and biodiversity loss.

✗ The loss of trees from farmland could increase soil erosion and reduce water availability, causing greater vulnerability to climate change.

✗ Monocultures of high-yield crops in combination with a decline in natural pest control agents increase vulnerability to pests and diseases.

✗ Farmers might become increasingly dependent on costly inputs obtainable from markets or large companies.

✔ Teeknoolojii qonnaa haraayafi mala qonnaa haaraatti fayyadamuun babal'achuu ni dandaha

✔ Gudinni naannichaa kan dhufu ummatuma naannoo sanaan yoo ta'uu kunis hedduu isaanittif faayidaa kennuu danda'eera.

Sodaa

✗ Keemikaalaa qonnaa hedduutti fayyadamuun faalamuu qilleensa fi manca'u qabeenya uumamaaf ni saaxila. Fakkeenyaaf qulqullinna bishaanii ni hir'isaa, oomishitummaa biyyee ni hir'isa, akkasumas lubbuu qabeeyyi heeddu ni mancaasa.

✗ Mukeewwan lafa qonnaa irraa dhabamuun isaanii dhiqama biyyee ni heddumeessa, argama bishaanii ni hir'isa kunis jijjirama qilleensaatiif akka saaxilamnu taasisaa.

✗ Qonnaa midhaan gosa tokko qotuun ilbisoonni faayidaa qaban akka badan taasisuun ilbisoonni fi raammoon midhaanii miidhaniif akka saaxilaman taasisa.

✗ Qonnaan bultoonni calla guddistuu qaalii ta'an gabaa dhaa yokiin warshaaleerra bitanii fayyadamuf hirkattumaa isaanii dabal.

✗ Babal'ina bu'uraalee misoomaa (kannen akka daandii fi kuusaa midhaanii) fi teeknoolojii qonnaa

- ✗ Initial investment needs to be high in infrastructure such as roads and storage facilities, as well as to facilitate agricultural knowledge transfer and technology (e.g. improved varieties, irrigation).
- ✗ High upfront costs may exclude many local people, causing major inequalities within local communities.
- ✗ Many people would lose access to forests, thus losing the possibility to use and sell forest products.
- ✗ Increased use of agrochemicals poses health risks.
- ✗ Traditional farming culture and community cohesion may be lost.

mirkaneessuf gatiin inveestimantii yokaan baasiin jalqabaa guddaa tahuu qaba.

- ✗ Kaapitaalli jalqabaa guddaa tahuu irraan kan ka'e namoonni heedduun fayyadamuu hin dandahani, kun immoo, walqixxummaan uummata giddu akka hin jiraanne taasisa.
- ✗ Namoonnii hedduun faayidaa bosonaa argachuu hin danda'ani, kunimmoo bu'aa bosona irraa argamu funaanani akka hirgurgurre fi hin fayyadamne taasisa. danda'u.
- ✗ Keemikaala qonnaattii heedduminan fayyadamuun rakkoo fayyaaf saaxilaa.
- ✗ Mallii qonnaa aadaa fi tumsi hariiroo uummata giddu jiru baduu ni dandaha.

Implications

Against a historical background of frequent food insecurity in Ethiopia and rapid loss of native forest, major benefits of this scenario are that it provides food to the nation and provides some safeguards for local biodiversity. While these are important strengths, proactive management is needed to ensure that the benefits of this scenario are not only short-lived. High use of agrochemicals as well as clearing of native trees in the farmland could lead to land degradation. Hence, it will be important to pay close attention to best practice principles in natural resource management – including eco-friendly modern approaches such as composting and the targeted use of manure. In addition, smallholders may need financial and technical assistance when facing potentially major upfront challenges as they invest into modernised food production. Such assistance should be delivered in ways that are equitable, to ensure poorer community members are not left behind.

Mul'isa

Seenaa biyyattii yeroo hedduu beelaaf saaxilamtuu fi manca'insa gosa muka bosonaahir'isuu keessatti faayidaan haala tahuu dandahuu kanaa, nyaata gahaa uummataaf dhiyeessuu fi lubbuu qabeeyyin gosaa hedduutiif eegumsii akka godhamuu taasisaa. Kunniin faayidaa guddaa yoo ta'aan, garuu, faayidaan haala tahuu dandahuu kanaa akka yeroo dheeraadhaaf ittii fufuf tarkaanfiin si'aawaa tahee fi bulchiinsi cimaan ni barbaachisa. Keemikaala hedduutti fayyadamuuni fimukeewwan hedduu lafa qonnaa irraa ciruun dhiqama biyyeetiif ni saaxilaa. Kanaafuu, itti fayyadamni mala kunuunsaa, too'annuu fi eegumsa qabeenya uumamaa barbaachisaadha. Kanas gochuf akka fakkenyaatti -mala xaa'oo kompostii akkataa barbaachisumma isaanitti fayyadamuun gaarii dha. Dabalataanis, qonnaan bultoota human cimaa hin qabnef gargarani akka isaan qonna hammayessurra fayyadamo tahan gochuf, ijaarsi dandeettii gama deeggarsaa maallaqaa fi teekinikaa kennuun murteessaa dha. Gargaarsi akkanaa kunis haala walqixxaa fi loogi hinqabneen tahhee namonin harka qalleyyi tahan bodatti akka hin hafneef gargaara.

Chapter 7

SYNTHESIS AND RECOMMENDATIONS

Boqonnaa 7

YAADA XINXALAA FI DHAAMSA GOOLABAA

Chapter 7

Synthesis and recommendations

We introduced four different scenarios for the future of southwestern Ethiopia, which span a broad range of plausible future development trajectories. In summary, the scenario "Gain over grain: local cash crops" describes a future that prioritises smallholder commercialisation around the commodities coffee, khat and fast-growing tree species. This scenario has possible benefits for incomes but may have undesirable social and environmental consequences. The scenario "Mining green gold: coffee investors" outlines what the future might be like if intensive coffee plantations by external investors dominate the region – this would have potential benefits for the national trade balance, but there is a high risk that local communities would not benefit from this economic development. The scenario "Coffee and conservation: a biosphere reserve" balances social, economic and environmental priorities, in pursuit of long-term sustainable and equitable development. A possible downside of this scenario is that the economic benefits of this development trajectory may not be instantaneous. Finally, the scenario "Food first: intensive farming and forest protection" envisages smallholders practising intensified agriculture. This could provide surplus food for

Boqonnaa 7

Yaada xinxalaa fi dhaamsa goolabaa

Egeree kibba lixa Itiyoophiyaatiif karaa amansiisaa ta'een haala tahuu dandahan afur kallatti misoomaa fi guddina fulduratti muldhachuuf jiru agarsiisandhiyeessinee jirra. Akka walii galaattii, haalli tahuu dandahu "Midhaan irra Bu'aa Maallaqa dursuu: Oomisha midhaan Galii" jedhu kan agarsiisu gara fulduraatti xiyyeffanno fi fulleffannoon qonnaan bultoota naannoo kanaa oomisha midhaan galii argamsiisan kannen akka buna, jimaa, akkasumas akaakuu biqiltuu dafanii biqilaanii irratti akka tahe agarsiisa. Haala tahuu dandahu kun bu'aa qabatamaa galii maallaqaa uummataaf argamsiisuu ni dandaha. Haata'u malee rakkoowwan dhiibbaa gama hawwaasummaa fi eegumsa naannos ni fida. Hala tahuu dandahu "Warqee Magariisa Baasuu: Abbootii Qabeenyaa Bunaa" kun immoo yoo investarootni bunaa bakka biraadhaa dhufanii dhunfatanii asitti investi godhan fuldurri yokaan egereen naannoo kanaa maal akka fakkaachuu dandahu mul'isa. Haalli kun keessattu galii sharafa biyya alaa argamsiisuun guddina dinagdee biyyaaf faayidaa ni qabaata, haata'u garuu, uummanni fi jiraatonni naanno kanaa guddina dinagdee kana irraa kallattin fayyadamoo hin ta'ani. Haala tahuu dandahu "Bunaa fi eegumsa naannoo: lubbu qabeeyyii daangessanii tursiisuu" kun

the nation, but entails an increased risk of land degradation.

While each scenario has its own specific opportunities, risks and implications – as outlined in the previous chapters – some considerations arise that would be beneficial in all instances, no matter which precise development trajectory eventuates. This is important, because most likely, the future will not turn out to be exactly one of the four scenarios we described, but will include a mixture of elements from different scenarios. We therefore provide the following recommendations not as an exhaustive list of considerations, but as a starting point for further discussion

bu'aa walqixxaataa, yeroo dheeraa fi walitti fufinsa qabu argamsiisun faayidaa fi xiyyeefanno hawwaasummaa, dinagdee fi eegumsa naannoo haala walmadaaleen eegsisa. Haata'u garuu guddinni diinagdee haala tahuu dandahuu kanaa saffisaa tahuu dhiisu ni mala. Dhumarratti, haala tahuu malu "Dursii Soorata: Haalaan qotuu fi eeggumsaa bosonaa" kun qonnaan bultoonni mala qonnaa ammayaahe akka fayyadamiif daandii bana. Haali tahuu dandahu kun omisha gahaa omishuudhaan wabii nyaataa biyyattii mirkaneessuf ni gargaara, haa tah'u garuu, dhiqama biyyeef ni saaxila.

Akkuma armaan olitti ibsame, haala tahuu dandahu tokkon tokkon isaanii carraa fidan, soda fi mul'isa mataa isaanii qabataniyyu, xiyyefannon tokko tokko haala tahuu dandahu hundumaa keessatti barbaachisaa kan tahan jiru. Hala tahuu dandahu kamiyyu yoo hojiirra oole, xiyyeffannon waloo ni jiraata. Kun immo heeddu barbaachisaa dha, sababnii isaas, egereen yokaan fuldurri naannoo kanaa dhibbaa dhibbatti haala tahu dandahu afran keessaa inni tokko qofaan mul'achu dhiisu ni mala. Irra caalaatti haloota tahuu dandahan afran keessaayyu hanga tokko walmakanii mul'achu ni malu. Kanaaf, qabxilewwan armaan gadii kun hala tahuu dandahu kamiyyu keessatti barbaachisaa warra tahanii fi akkasumas marii qooda fudhattota giddutti kakaasuf kannen akka yaada ka'umsatti ni fayyadu jenne dhaamsa ijoo armaan gadii dhiyessineerra. Dhu-

among stakeholders. In addition to the specific implications outlined in the previous chapters, we recommend the following:

1. *Treasure and protect the unique biodiversity hotspot in Ethiopia's southwest.* The Afromontane forests of southwestern Ethiopia are internationally recognised as a biodiversity hotspot. As such, they are a resource that is of global significance. They are also a source of national pride and the source of traditional local livelihoods, including coffee production. The protection of the remaining natural and semi-natural forest patches should be a high priority.

2. *Intensify farming via modern organic and agroecological methods.* Against a context of land scarcity, increasing the agricultural yields of smallholder farmers can help to ensure future food security. However, agrochemical-based intensification can harm soils and other parts of the environment, and input dependency can cause economic problems for less wealthy farmers. Agroecological intensification methods such as the use of compost and manure therefore should receive greater attention in the future.

3. *Integrate cash crop and food crop production.* Cash crops can be beneficial to generate income, but for most households, growing a diversity of their own crops remains the

maratti, dhaamsa ijoo tokkon tokkon halaa tahuu dandahan afran arman olii jalatti kan ibsineen alatti dhamsa ijoo armaan gadii keenyera:

1. *Lubbu qabeeyyiwwan adda addaa kanneen Kibba Lixa Itiyoophiyaattii argaman sirnaan eegaa ti irraa fayyadamaa.* Bosonni naannoo kibba lixa Itiyoophiyaatti argamu mandhee hortee lubbu qabeeyyii gosa adda adda tahuun sadarkaa addunyaatti beekamtiin kennameefira. Kanaaf, qabeenyi kun qabeenya sadarkaa addunyaatti barbaachisummaa fi faayidaa qaba. Dabalataanis qabenyi kun badhaadhina biyyattin ittin boontuu fi akkasumas oomishaa bunaa dabalatee madda jiruuf jireenya uummatta naannoti. Kanaaf, kunuunsii fi eegumsi qabeenyaa umaamaa fi gartokkenuumama ta'aan kanaa xiyyeffanno jalqabaa kennamuufi qabata.

2. *Mala qonnaa Orgaanikii (keemikaale kan hin qabne) ta'ee fi haala kunuunsa naannoo waliin walsimateen qonna hammayyessaa.* Hanqina lafa qonnaa irra aanuuf omishaa fi omishtummaa dabaluun gara fulduraaf wabii nyaataa mirkaneessuf barbaachisaa dha. Haata'u malee garuu, keemikaalota qonnaa fayyadamanii qonna hammayyeessuun biyyee fi haala naannoo midhaa ni geesisaa, callaa guddiftuu irrattii hirkatamummaa uumuun diinagdee qonnan bultoota harka qalleyyi irratti miidhaa ni fida. Sababa kanaaf malli qonnaa haala naannoo wajjin walsimate kan akka itti fayyadama kompostii fi dikee

fundamental basis of their food security. It therefore makes sense to enhance cash crop production in addition to a diversity of food crops, not as a replacement.

4. *Build local capacity and awareness via outreach programs.* Many partial solutions to sustainable development already exist, but local communities may not be implementing these solutions. Building awareness and capacity within the community and within government offices therefore is an important priority.

5. *Bring together multiple stakeholders when working towards a better future.* Anyone who can affect an important decision, or is affected by it, should be considered a relevant stakeholder. Development trajectories are shaped by many stakeholders, and have a big effect on local communities. Stakeholders such as policy makers, non-government experts and local people should find ways to work together.

6. *Draw on the strengths of local communities.* Nobody knows the conditions in a particular locality better than the people who live there. Local communities can provide important insights regarding the likely viability of different development ideas. It is vital to see local communities not only as recipients of knowledge, but also as sources of local experience and wisdom.

fayyadamuun xiyyeeffannoo guddaa argamchu qaba.

3. *Midhaan nyaataa fi midhaan galii waliwajjin oomisha.* Midhaan galii oomishuun madda galii ta'uudhaan heeddu fayyada. Haata'u malee garuu maatii hedduuf oomisha adda addaa ofii isaanif oomishuun bu'uura wabii nyaataa isaanii ti. Kanaaf midhaan nyaataa oomishuun cinatti midhaan galiis oomishuu wayya malee omishni midhaan nyaataa isa kaaniin bakka bu'uu hin qabaatu.

4. *Sagantaawwan hundaa biraa gahuun qiindessun dandeettii fi hubannoo hawaasaa cimsuu.* Furmaanni adda addaa (guutuu tahuu baatanis) kan misoona walitti fufaa tahee fidan hojiira olaa jiru. Haata'u malee garuu uummanni naannoo sana hojiitti hiikaa hin jirani. Malli cinaadhaan faayidaa kennuu danda'uu hojii irraa oole jiraa. Hawaasni naannoo mala kanattii fayyadamuu dhabuu ni mala. Kanaaf dandeetti fi hubannoo hawaasaafi hojjettota wajjiraalee mootummaa keessatti hojjettaniif dandeetti fi hubanno isaanii cimsuun barbaachisaa dha.

5. *Jijjirama barbaachisa fulduratti fiduuf hirmaannaan qooda fudhatoota hunda murteessaa dha.* Qaamni kamiyyu kan murtoowwan jiran murteessu yokaan murtoo murtaayeen kan miidhamu (Fayyadamu) adeemsa misoonaa keessatti sirnaan hirmaachu qaba. Kamiyyuu kan murtii kennamu irrattii gahee taphatuu

7. *Ensure that everyone benefits from development.* Truly sustainable development must benefit both wealthy and less wealthy households, and should empower both men and women.

8. *Intensify efforts to slow down population growth.* With land scarcity already a major problem, efforts to slow down population growth should not be delayed. Culturally and religiously appropriate means of family planning, as well as secondary education for women, are widely proven as effective means to reduce *family sizes.*

yookan murtiidhan tuqamuu danda'uu hundii isaa abbatii gahee jedhama. Jijjiramni gama misoomaan dhufu hundi qooda fudhatootaan kan murteeffamu namoota naannoo heeddu irraan dhiibbaa qaba. Qooda fudhattotni kanneen akka warra seera tuman, miti-mootuumaa fi jiraatonni naannoo haala akkamiin akka waliin hojjetan mariidhaan murtessu qabu.

6. *Ciminna hawaasaa irrattii amanu.* Eenyullee hawaasaa naannoo sana jiraatu malee haala jireenyaa isaani beekuu hin danda'uu. Hawaasni naannoo yaada misoomaa barbaachisaa ta'uu danda'an dhiyeessuu ni malu. Kanaaf hawaasaa naannoo akka naamoota beekumsaa kennamuuf qabu qofaa osoo hin ta'iin akka muuxannoo naannoo fi beekumsa qabanitti ilaaluun barbaachisaadha.

7. *Namni kamiyyuu misooma irraa fayyadamaa akka ta'an mirkaneessuu.* Misoomni ittii fufiiinsaa qabuu maatii hiyyeessaa fi maatii dureessa ta'aani fayyaduu qabata akkasumas dhiiraa fi dubartiillee qixxa angeessuun irraa eegamaa.

8. *Tooftaa baay'ina uummataa hir'isan ciminaan hojiirra oolchuu.* Hanqinni lafaa dursaan rakkoo ta'ee waan jiruuf yaaliin baay'ina ummataa ittiin hirdhisan yokaan to'atan ciminaan itti fufuu qaba. Gama aadaa fi amantaatiin tooftaa karoora maatii fudhatamaa tahe fi ijoollee dubartootaa barnoota

Finally, we note that no matter what happens, there are also global forces at work that are beyond any stakeholder's immediate control – the most notable ones being climate change and unpredictable fluctuations in global markets. Although these forces cannot be controlled, the above strategies will help to build resilience against unforeseen surprises. Moreover, some scenarios are particularly good for building long-term resilience, while others might provide rapid short-term benefits but potentially leave communities vulnerable in the longer term. Such considerations should be part of discussions about what kinds of development trajectories should be pursued.

In conclusion, we hope this small book can provide a stimulus for proactive thinking about the future of southwestern Ethiopia. There are many challenges ahead – but drawing on the ideas of people from all walks of life, there are also many opportunities to make the southwest one of Ethiopia's proudest and most beautiful places.

sadarkaa lammaffaa fi ol'aanaa barsiisuun tooftaa baay'inni uummataa ittin to'atan akka tahe mirkanaayeera.

Dhuma irratti, wanti nutti hubatamu qabu, wantoonni ciccimoon kan dandeettii, to'annoo fi human qooda fudhattotaan ol ta'ee akka addunyaatti akka jiruu hubachuun barbachisaa dha. Kaneen keessaa kan akka jijjirama qilleensaa, gatiin gabaa addunyaa tasgabbahu dhabuun rakko ciccimoo dha. Rakkowwan kana to'achuu yokaan furuu baatus, tooftaawwan armaan olitti ibsine kun dhiibbaawwan kanaa fi jijjiramoota otoo hin beekamiinii fi hin tilmaamamiin muudatan dandamachuuf heeddu murteesso dha. Dabalataanis, haala ta'uu dandahu gariin isaanii dandeetti dandamannaa yeroo dheeraa uumuudhaaf kan fayyadan yemmu tahu, gariin isaanii immoo faayidaa atattamaa yokaan yeroo gabaabaa kennuun rakkoo yeroo dheeraaf nama saaxilu. Yaadni akka kanaa kun yeroo mariin misooma akkamii fi daandii misoomaa kamiin hordofu qabna jedhamee mariyatamu xiinxala keessa galchuun murtessaa dha.

Xumuraa irratti, kitaabni xiqqaan kun marii egeree kibba lixaa Itiyoophiyaa akka taasifamuuf yaada ka'umsaa kenna jennee amanna. Rakkowwan hedduun fuuldura jiru, garuu, yaadaa fi muuxanno qooda fudhattota adda addaatti fayyadamuun naannoo kibba lixa biyyatti bakka hawwataa fi filatamaa Itiyoophiyaa gochuuf carraa heeddun ni jira.

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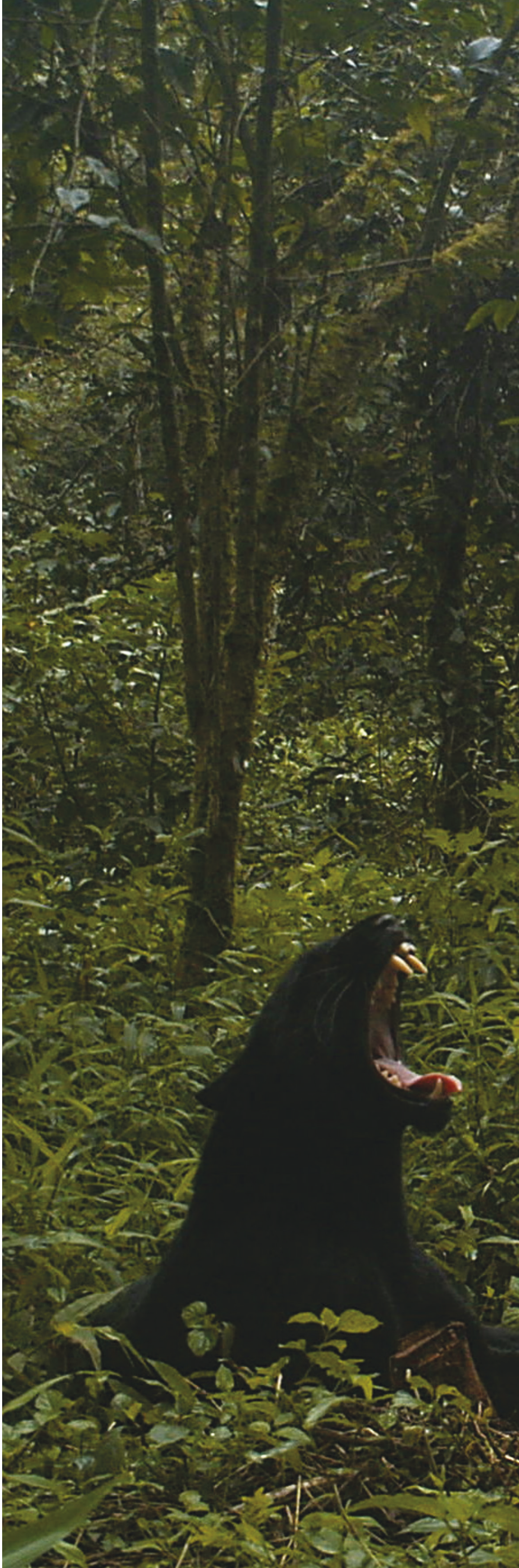


Galata

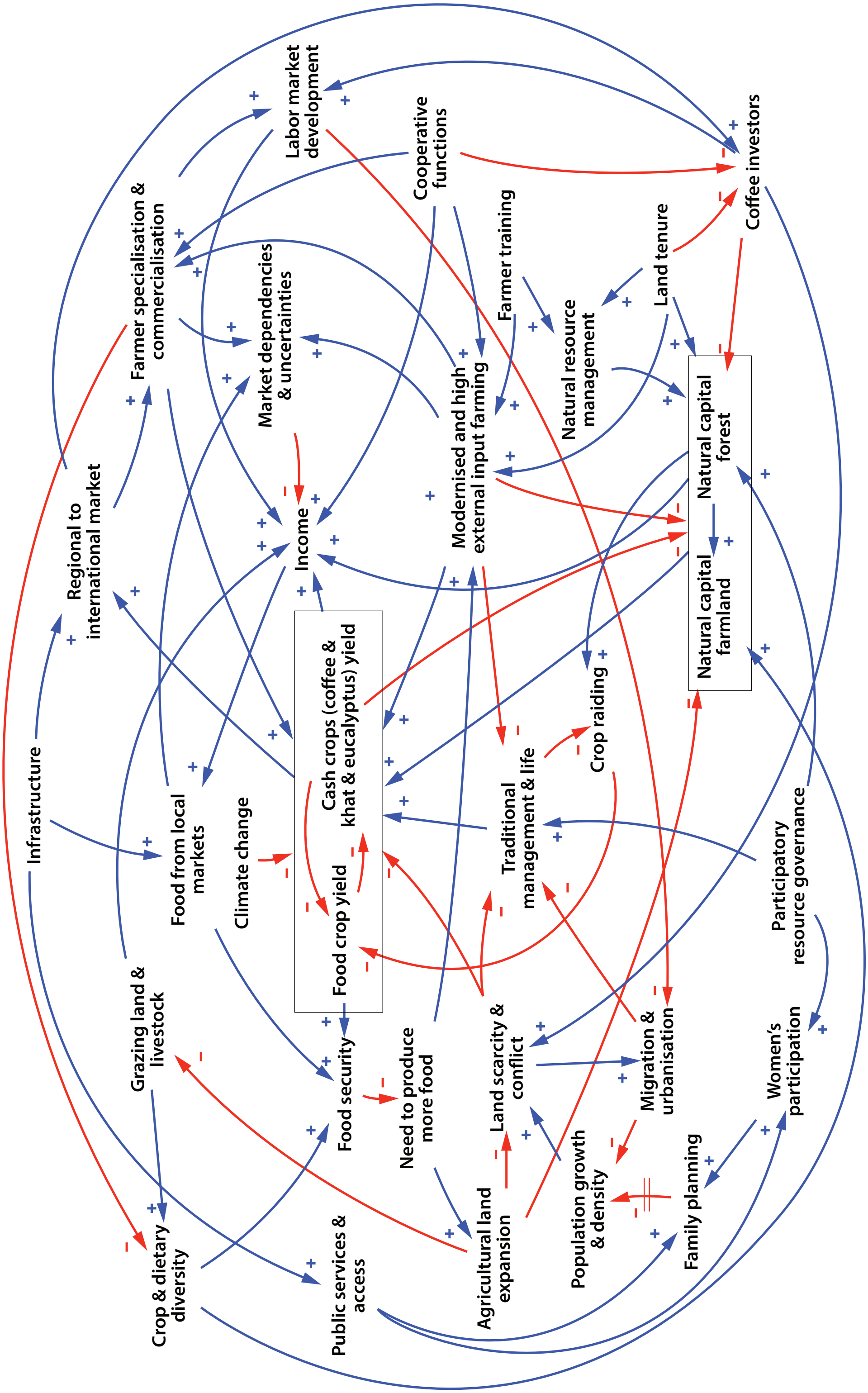
Qooda fudhattota hunda isaanii kan maree fi workiishooppii, kadda addaairrattii hirmaachuun yaada nuuf kennan hundaan galateefachuu barbaanna. Hunda dursa namootaa naannoo sana jiraatan haala gaariidhaan nu simatanii beekumsa fi huubannoo isanii nuu qooddataniif galataa guddaa kennuufi barbaanna. Galannii addaa Daadhii Fayyisaa Damuu fi Birhaanuu Baqalaa Nagaash walgahii akka adeemsifnuufi workishooppii piroojeektii akka qopheesinuu waan nu gargaaraniif galataa guddaa dhiyeessuuf barbaannaa. Hojiimiiltoo keenyaa obbo Leenaard Taale-Boombeen, Kiristoofar Haayilaandar, Girmaa shuumii Dhugoo, patirishiyaa Roodirigas, Ayisa Maanlosaa, Arvid Bargistan, Niil Firenchi Kooliyer, Deebisaa Lammeessaa, fi Abbaba Fufaa gargaarsaa isaan piroojeektii irrattii nu godhaniifi yaada gaarii isaan nuuf dhiyeessaniif. Namoota gargaarsa dirree irrattii nuuf dhiyeessan hundaa isaani galateefachuu barbaannaa. Hojii qoranno kana adeemsisuuf eeyyama kan nuuf godhan mootumma Itiyoophiyaa akkasumas bulchinsa Naannoo Oromiyaa dhimmi ilaalatuu yoo ta’uu, gargaarssi maallaqaa Wirtuu qorannoo gamtaa Awurooppaa kan Joorni Fiishariif kenname irraa dha. Mootii Gurmeessaa kitaaaba kan hiikeef galateefachuu barbaannaa.

Appendix

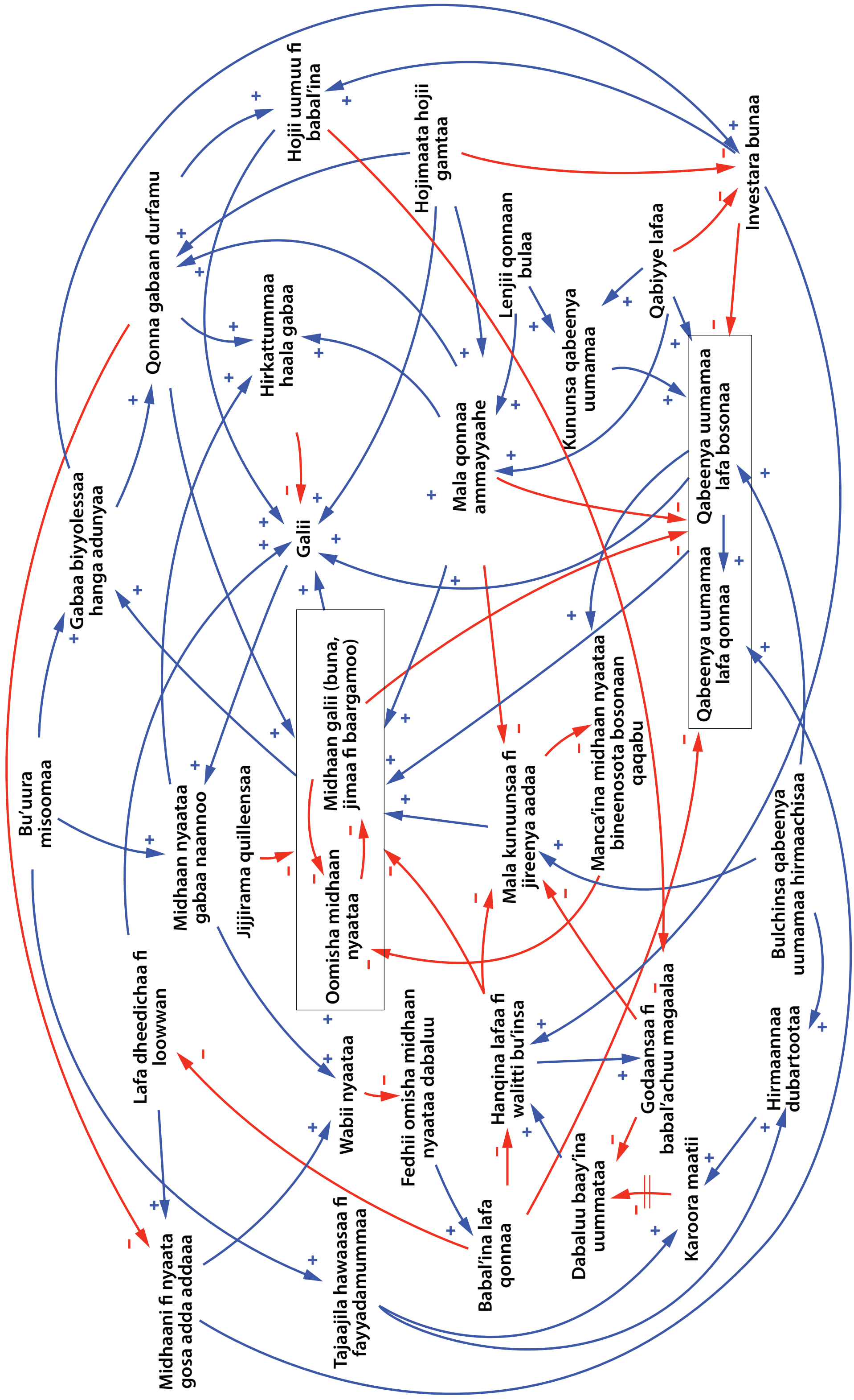
Schematic summary of the systems understanding underpinning the scenarios. Blue arrows represent enhancing effects (+), meaning that an increase (or a decrease) in one variable leads to an increase (or a decrease) in another variable. Red arrows represent reducing effects (-), meaning that an increase (or a decrease) in one variable leads to a decrease (or an increase) in another variable. This diagram only includes those variables and interactions that were mentioned consistently during the workshops with local experts.

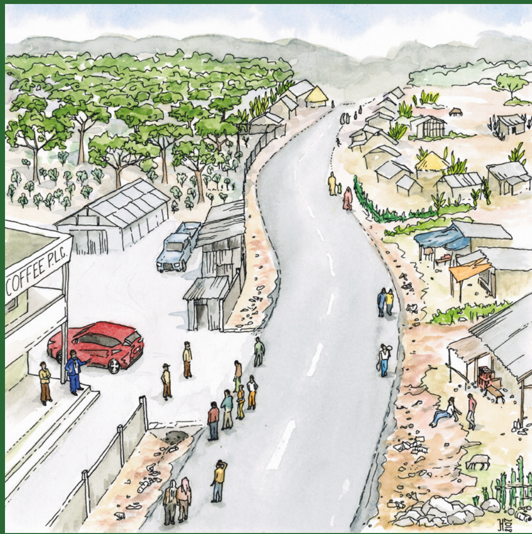
Miiltoo

Fakki sirna hubannoo waliigalaa kan haala tahuu dandahu irratti hundaa'an ibsa. Xiyyi cuquliifni walsimannaa yokaan hariiroo walfakkaataa jijjiiramoota lama giddu jiru agarsiisa (+). Kana jechuun, jijjiramni tokko yoo dabalu (Hir'atu) haaluma walfakkatuun jijjiramni inni biraanis akka dabalu (hir'ata) taasisa. Xiyyi diimaan bu'aa hir'achu agarsisuu (-). Kana jechuun, jijjiramni tokko yoo dabalu (Hir'atu) haala faallaa taheen jijjiramni inni kaan akka hir'atu (dabalu) tasáis. Fakkiin kun jijjiiramoota yeroo qooda fudhattota wajjin marii taasifnetti irra deddebiidhaan caqafaman qofa kan agarsiisu dha.



Labor market development
Cooperative functions
Coffee investors
Farmer specialisation & commercialisation
Market dependencies & uncertainties
Farmer training
Land tenure
Natural resource management
Modernised and high external input farming
Natural capital forest
Natural capital farmland
Income
Regional to international market
Cash crops (coffee & khat & eucalyptus) yield
Crop raiding
Traditional management & life
Infrastructure
Food from local markets
Climate change
Food crop yield
Participatory resource governance
Grazing land & livestock
Food security
Need to produce more food
Land scarcity & conflict
Migration & urbanisation
Women's participation
Population growth & density
Family planning
Crop & dietary diversity
Public services & access
Agricultural land expansion


Hojii uumuu fi babal’ina
Hojimaata hojii gamtaa
Investara bunaa
Qonna gabaan durfamu
Lenjii qonnaan bulaa
Qabiyye lafaa
Kununsa qabeenya uumamaa
Hirkattummaa haala gabaa
Mala qonnaa ammayyaahe
Qabeenya uumamaa lafa bosonaa
Galii
Gabaa biyyolessaa hanga adunyaa
Qabeenya uumamaa lafa qonnaa
Midhaan galii (buna, jimaa fi baargamoo)
Bu’uura misoomaa
Midhaan nyaataa gabaa naannoo
Jijjirama quilleensaa
Mala kunuunsaa fi jireenya aadaa
Manca’ina midhaan nyaataa bineenosota bosonaan qaqabu
Bulchinsa qabeenya uumamaa hirmaachisaa
Oomisha midhaan nyaataa
Lafa dheedichaa fi loowwan
Wabii nyaataa
Fedhii omisha midhaan nyaataa dabaluu
Hanqina lafaa fi walitti bu’insa
Godaansaa fi babal’achuu magaalaa
Hirmaannaa dubartootaa
Midhaani fi nyaata gosa adda addaa
Tajaajila hawaasaa fi fayyadamummaa
Babal’ina lafa qonnaa
Dabaluu baay’ina uummataa
Karoora maatii



Southwestern Ethiopia is a globally recognised biodiversity hotspot, the place of origin of coffee, and home to millions of smallholder farmers. Both the lives of these farmers and the natural environment in southwestern Ethiopia are rapidly changing. How can such change be navigated to ensure the best possible outcomes for both people and the environment? This small book is an invitation to envisage what the future might hold for southwestern Ethiopia, and how it can be shaped in such a way that it delivers the greatest benefits to Ethiopia and its people.

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Kibbi Lixaa Itiyoophiyaa mandhee qabeenya hortee lubbu qabeeyyi adda addatiin sadarkaa adunyaatti beekamti argatee, bakka argama bunaa fi bakka jireenyaa qonnaan bultootta miliyoonaan lakkaawamaniiti. Halli jireenya uummataa fi akkasumas haalli naannoo uumamaa kibba lixa Itiyoophiyaa saffisaan jijjiiramaa jira. Halli jijjiramaa kun akkamiin xiinxalamee jijjiramni garafulduraatti dhufu jireenya uummataa fi haalla naanoo tiif bu'aa qabeessa gochuun dandahamaa? Kitaabni xiqqaan kun egereen kibba lixa Itiyoophiyaa maal fakkaachu dandahaa kan jedhuu fi egereen kunimmo haala akkamiin to'atamee bu'aa guddaa Itiyoophiyaa fi uummatasheef akka fidu gochuun danda'amaa gaaffii jedhuuf akka afferraatti kan djiyaate dha.