The Future of Pastoralism in Ethiopia

Ethiopian representatives and leading international thinkers deliberate over the state of pastoralism, making a new analysis of potential futures.
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A New Understanding of Pastoralism

Ethiopia has Africa’s largest livestock population. Over 60% of its land area is semi-arid lowland, dominated by the livestock economy. Today Ethiopia is looking for a new and deeper understanding of its pastoralist regions and an accurate appreciation of their environmental and socio-economic trajectories.

Ethiopians from the Federal and Regional governments and from traditional institutions met at the University of Sussex, Brighton, England in December 2006 to deliberate over the future for pastoralism in Ethiopia. They discussed past and present pastoralist policies and policy processes and set out a policy objective that calls for ‘creating sustainable livelihoods and improved living conditions and reducing vulnerability, risk and conflict in pastoral areas.’ They proposed to achieve this through ‘enhanced socio-economic integration, recognition of pastoralists’ voice and maximising the potential of the pastoral economy.’

This report is drawn from evidence given by academic scholars in the fields of economics, anthropology, environmental studies and political science, together with the deliberations of the Ethiopian team. It summarises the data and presents a fresh analysis of potential futures for pastoralists. It begins by setting out the facts and figures in section one; putting forward evidence on influential longer-term factors that affect development in pastoralist regions.

The publication then looks toward the future, envisioning some of the choices pastoralists may make over the next 20 years. The analysis uses the research evidence to consider how the key influences on pastoralism may combine to shape the future. If market potential is high and environmental productivity is good, what is the most likely direction of development? Where are the benefits likely to accrue and what risks do people face? Conversely, if markets are inaccessible and population outstrips production from the natural environment, what would the likely outcomes then be? This combination of science and imagination produces a new, more detailed and more realistic understanding of the way pastoralism works and its future in Ethiopia.
Section 1

Three Key Factors

1. Environment, Natural Resources and People
2. Market Potential
3. Conflict and Governance

Researchers are now largely in agreement that pastoralism is uniquely well adapted to dryland environments. As an economic and social system, it operates effectively in low and highly variable rainfall conditions, managing the complex relationship between man and the natural environment. Economists working on pastoralism in sub-Saharan Africa have found that livestock production is an engine for trade, farming, tourism and urban activities. Experience in west Africa has shown how pastoral societies can integrate with state and regional institutions to create effective systems of governance.
The many millions of pastoralists that inhabit Africa’s drylands, and the often-vibrant economies they sustain, are testament to the resilience of pastoralist livelihood systems, but these systems are also very vulnerable. Populations are rising, the climate is changing and international markets are setting ever-higher barriers for access. Providing good government and services is becoming increasingly challenging in environments where infrastructure is absent, education poor and competition for scarce resources high.

It is useful to begin by clarifying what we mean by development before looking at the specifics of development for the pastoralist lowlands. Leading economists argue that economic growth, as measured by gross national product, provides a good proxy indicator of development. They argue that increasing economic growth leads to freedom from poverty, which results in human development. Nobel-prize winning economist Amartya Sen, however, has proposed an alternative economic argument, subsequently adopted by the United Nations as the Human Development Framework. It presents a model of development that goes beyond the fulfilment of basic physical or monetary needs to include an expansion of people’s freedom to do the best for themselves and for their societies. It involves broadening people’s choices and strengthening their capabilities as economic, social and political actors. It calls for knowledge and resources to allow people to live long and healthy lives. It implies guaranteed rights and good governance, and suggests that excessive inequality is a negative form of development. John Gaventa, Professor of Political Sociology at the Institute of Development Studies, proposes that this view of development implies a belief in democracy wherein individuals and groups not only have ‘freedom from’ poverty or suffering, but ‘freedom to’ take beneficial action.

Sir Richard Jolly, an economist who was prominent in the creation of the Human Development Framework, points to evidence that only a combined investment in economic growth and the human face of development will enable countries and communities to reach their full potential. Jolly points out that while studies illustrate that richer countries show a correlation between human development and growth, it is not so clear whether one causes the other or in which order they happen. A number of countries have achieved progress in human development (having high levels of capability, choice, rights and equality), without realising high levels of economic development. There are also examples of countries where rapid growth has led to a decline in human development indicators. The most difficult situations, he says, are those where both economic growth and human development are low. The solution to this has often been to improve the human development indicators in advance of economic indicators. Meghnad Desai, Professor Emeritus of Economics at the London School of Economics, disagrees, arguing that it is not necessary to have liberal conditions in order to achieve economic growth and development, citing China as an example. The evidence that follows assumes that development encompasses both economic and human flourishing. It therefore focuses on the effect of environmental, economic and institutional changes on people’s capabilities as much as on their state of poverty or wealth.

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Most pastoralists move between seasonal grazing areas, taking strategic advantage of different forage and water sources as they become available. Very few pastoralists are the wandering nomads they have been portrayed to be. They are experts at maximising the use of rangelands, a capability demonstrated by numerous research studies. For example, studies by Cossins and Upton between 1985 and 1989 showed that the Ethiopian Borana pastoral system had higher returns of both energy and protein per hectare than industrialised ranching systems in Australia. At the time, Australian Northern Territory ranches realised just 16% of the energy and 30% of the protein per hectare produced by the Borana system. Other research shows similar results for collective use of pasture in countries such as Zimbabwe, Kenya and Botswana.

To achieve these high levels of productivity, pastoralists depend on access to key resources at specific times. According to Katherine Homewood, Professor and Head of Department of Anthropology at University College, London, pastoralists are only able to utilise marginal lands when they take temporary advantage of richer areas or ‘hot spots’ with high rainfall, high nutrient forage or both.

Some terrains, including much of the Sahel, have low rainfall and poor soil nutrients. These rangelands can only be used productively by mobile pastoralists. Other areas have higher rainfall or moisture levels but poor soil, resulting in abundant but low-quality forage for much of the year. These woodlands and wetlands, like those found in Gambella and southern Sudan, may be used by pastoralists for part of the year and are often improved by the setting of controlled fires. Yet other areas have low rainfall but nutrient-rich soil, such as the volcanic soils found in the Rift Valley of Ethiopia, Kenya and Tanzania. These are important areas for pastoralists, providing flushes of vital nutrition for livestock for short but often unpredictable wet season intervals. Finally there are key areas that have both high moisture and nutrient-rich soil. Where these occur within the drylands, they form the ‘dry season grazing reserves’ that occur along watercourses and in valley floors. Pastoralists require guaranteed access to these zones when all the other areas fail to produce forage. Without occasional access to these key resources, pastoralist systems break down.

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1. Environment, Natural Resources and People

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The second key resource for pastoralists is water. During the wet season water is usually distributed across the rangeland in ponds and seasonal streams. During the dry season, pastoralists gather around a limited number of permanent water sources. The grazing around these water sources needs to be carefully managed if it is not to be exhausted before the next rains come and pastoralists are able to move off across the range.

Intensive farming utilises key resource areas. The problem for pastoral livelihoods is that when farms monopolise the limited areas of higher moisture and higher nutrient soils, the rest of the landscape may be rendered unusable by pastoralists. However great the profits from farming, the economic losses and social costs of declining pastoral production often outweigh it, according to Swift, Scoones, Homewood and numerous others. Areas with highly variable rainfall are vulnerable to drought and while farmers may use irrigation along some permanent watercourses, the dangers and costs of salination in high evapo-transpiration environments must be taken into account. Researchers also suggest that it is important to consider pollution caused by intensive agriculture, for example of water sources also used by the human and animal populations.

Farming and pastoralism, however, need not remain at odds nor should their co-existence be a source of conflict. Peter Little, Chair of the Department of Anthropology at the University of Kentucky, reports that carefully planned arrangements for negotiation and agreement can be made to allow farmers and pastoralists to share key resources. Farmers living along the banks of the Niger River, for example, open fields to pastoralist grazing after the harvest, in a system that is carefully administered to create mutual benefit for both types of land use.

For pastoralists, this means arranging land tenure and
number of pastoralists who are able to survive on the range must decline.

While climate change is almost certain, drought is not a given. Hulme et al. (2001) analysed future rainfall changes for three African regions – the Sahel, east Africa and southeast Africa – to illustrate the extent of differences for these regions and to place future modelled changes in the context of past observed changes. Although model results vary, there is a general consensus for increased rainfall in east Africa, drying in southeast Africa, and a poorly specified outcome for the Sahel. The scientists are also predicting an increase in variability and extreme events as a result of warming. Under the most rapid global warming scenario, increasing areas of Africa will experience considerable changes in summer or winter rainfall. Large areas of equatorial Africa will experience increases in December-February rainfall of 50–100% over parts of eastern Africa, with decreases in June-August rain over parts of the Horn of Africa.

Pastoralists are often accused of degrading the land through overgrazing. Scholars such as Homewood dispute this idea, noting the natural tendency of non-equilibrium ecosystems to extraordinary flushes of vegetation followed by periods of apparent barrenness. While there is still some disagreement among academics as to whether land degradation in semi-arid and arid ecosystems is widespread or just occasional, it is clear that making the best and most sustained use of natural resources requires mobility and effective administration, along with a thorough understanding of the science relating to these very particular environmental systems.

Even if institutional arrangements exist to give pastoralists and farmers effective rights of access to key resource areas at appropriate times of the year, ecological change may continue to threaten pastoral livelihoods. Global climate change caused by the accumulation of greenhouse gases in the atmosphere is likely to create local climatic change in the Horn of Africa. While Swift argues that pastoralist mobility may give some resilience to climate change, there are others who point out that if there are increasing climatic shocks together with a decline in mobility, the number of pastoralists who are able to survive on the range must decline.

For the time being, rainfall at some sites at least has not decreased, indeed there are cases of reported increase, but also of changes in spatial and temporal variability.

For pastoralists, mobility and controlled access to key environmental resources are the central issues relating to production. Environmental productivity and the relationship of people to the land together form a key driver of, or influence on, the future of pastoralism.

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The market is the second major influence on the pastoral economy. The livestock sector in non-OECD countries is growing at a rate of up to 7% per annum – much faster than the agricultural sector as a whole, and by 2020 it is predicted to be the most important sub-sector in terms of added value. Peter Little, who has studied pastoral livestock marketing in east Africa for more than two decades, says that pastoralists have long been engaged in trade and are pressing for expansion and improvement. Contrary to common assumptions, he says that pastoralists are generally more dependent on markets for their livelihoods than are farmers.

There are a number of different types of livestock trade, ranging from sales to local butchers, sales to the national domestic market (large urban centres), cross-border sales supplying markets in neighbouring countries, and export sales supplying international markets in the Middle East, Europe and parts of Africa. Each has different requirements for access and different risks and opportunities.

Researchers have estimated that in most east African countries, the contribution of pastoral domestic, cross-border and international export trade to national GDP is as much as five times the amount that governments spend on the livestock sector. Animals are traded for meat, but also for fattening as breeding stock, for restocking and for agriculture. There are also active markets for milk, cheese, hides and skins as well as for commodities including foodstuffs, household goods and electronics. Little reports that annual livestock turnover in Garissa market in North-eastern Province of Kenya is $26 million per year, and Dr Stephen Devereux, researching vulnerable livelihoods, notes that livestock turnover in four markets in Somali Region, Ethiopia amounts to some $50 million.

Local markets, including cross-border trade with neighbouring countries and trade from lowland to highland or rural to urban areas, are vital for herder livelihoods. Growing urban centres such as Nairobi in east Africa, just like those along the coast of west Africa studied by André Marty, Professor of Sociology at the Institut de Recherche et d’Applications des Methodes de Developpement in Montpellier, France, are creating ever-rising demand for meat, milk and cheese. However herders often face difficulties in getting good prices from domestic markets, caused partly by multiple transit fees.

Since much of this trade is unrecorded, its contribution to economic development is often missed. Although taxes are actively evaded, livestock trade is still contributing significant

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levels of revenue to government at local and national levels through market taxes and transit fees. Traders also pay for services such as water and market facilities. Growing pastoral trade generates employment and investment capital, says Little. Towns like Garissa have grown exponentially since the 1990s, almost entirely due to gains from livestock and commodity trade. Devereux and Little both note that in the Ethiopian lowlands, the cross-border trade provides for the food security and employment of a substantial proportion of the lowland population.

Livestock trade in east Africa is relatively well organised, says Little. Trucks are widely used where road systems are functional, as are mobile phones. Specialised entrepreneurs use feed for fattening, and pastoralists engage in selective breeding in response to market demand. Several important institutions exist to regulate trade within the traditional system, also providing market information and facilitating monetary transactions. Animals are not, as widely believed, sold mainly during drought times. Rather, herders tend to respond when and where prices are best, often timing their production to sell animals at their peak weight.

It would be wrong to suggest that there is a vast supply of animals currently available for market expansion. At present many pastoralist herds are over 70% female breeding and milking animals and studies show that herders are best advised to keep large herds rather than produce only for sale. Katherine Homewood explains that large herds, like the seasonal flushes of vegetation on high nutrient soils, are a rational response to the unpredictable nature of arid non-equilibrium ecosystems. PARIMA, a pastoralist research programme in east Africa, has found that, at least for Borana pastoralists in Ethiopia, the most lucrative form of savings and investment is still livestock.

The market system has numerous weaknesses. Herders often arrive in market towns after long treks and are vulnerable to low prices. Their selling options are limited as they do not want to take animals back with them and forage is usually expensive. Urban-based meat wholesalers often take the bulk of the profit and keep prices to trekkers and producers low. Conflict increases the cost of market transactions and limits the seller’s options to routes and markets where safety can be guaranteed. This is particularly the case in the Somali markets where much trading is limited to clan corridors.

Traders complain that they cannot make a living unless they conduct their trade illegally, due to the cost and inefficiencies of current systems of taxation and licensing. Thus their commodities and trucks are at risk from confiscation, and governments lose potential revenue. Attempts to control the contraband trade using border closures are not good for the economy and tend to promote further evasion by trekkers and traders. Little reports that the number of kilos of basic food items that could be bought with the profits of selling one sheep or goat fell dramatically in 1998 following a border closure between Somaliland and Ethiopia. Whereas prices in Berbera on the Somaliland coast hardly changed, prices of food in Borama and Togwajale, two towns close to the border, rose considerably. Loss of revenue and foreign currency reserves to government is an important issue, as is the effect of unrestrained animal movement on the spread of trans-boundary diseases.

<table>
<thead>
<tr>
<th>Food</th>
<th>Berbera (in kg)</th>
<th>Borama (in kg)</th>
<th>Togwajale (in kg)</th>
<th>Range of Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat flour</td>
<td>67</td>
<td>53</td>
<td>68</td>
<td>52</td>
</tr>
<tr>
<td>Maize</td>
<td>54</td>
<td>54</td>
<td>37</td>
<td>30</td>
</tr>
<tr>
<td>Rice</td>
<td>55</td>
<td>55</td>
<td>37</td>
<td>30</td>
</tr>
<tr>
<td>Sorghum</td>
<td>60</td>
<td>51</td>
<td>88</td>
<td>55</td>
</tr>
<tr>
<td>Pasta</td>
<td>28</td>
<td>28</td>
<td>19</td>
<td>15</td>
</tr>
</tbody>
</table>

Impact of Closure of Cross-Border Trade on Food Prices, Ethiopia/Somaliland 1997-1998 (sale of 1 small stock), source: Peter Little

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International markets are particularly risky. Persistence of 12 of what the World Animal Health Organisation considers to be the 15 most serious trans-boundary diseases is a major constraint. In a recent article, Thomson et al suggest that many who promote international market access do not understand the complicated technical and resource requirements necessary for the creation of disease-free zones, or that they are disease specific. Selling processed products such as canned or chilled meat can get around some of the problems, but Scoones and Wolmer note that even these products are bound by sanitary and quality requirements.

Access to markets and fair prices is crucial to almost all pastoralists, there being very few who do not rely on a market for sale and purchase of stock. In northern Kenya for example, Barrett et al found that 92% of pastoralist households had used livestock markets within the period 2000-2002. In southern Ethiopia the same study found 87% of households accessing the livestock markets. Markets also provide jobs for the tens of thousands of market employees and traders, transporters and entrepreneurs. As such, access to markets, which markets and under what conditions, is the second key influence on the future of pastoralism.

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3. Conflict and Governance

Violent conflict is often cited as having a fundamental effect on human and economic development. Pastoralists’ reliance on mobility makes them particularly vulnerable to conflict and fear of conflict, which can cut off their access to key resources and block them from important markets.

Conflict avoidance can be understood as a question of management of relations between individuals, communities and even nations: a question of governance. Yet development experts often disagree as to the sources of conflict and therefore what should be done about it. One perspective is that conflict is caused by poverty, suggesting that economic development will reduce levels of conflict. Christopher Cramer, Professor of Political Economy at the School of Oriental and African Studies in London, points out that this view is rooted in the claim that it is the interests which motivate individuals to accumulate wealth, which lead to violence. Rapid capitalist development, as seen in Mozambique, Angola and Sudan, has been blamed as a cause of unrestrained conflict. Another version of this viewpoint suggests that a mix of greed and grievance is behind the decision to become involved in violence. Cramer notes that major conflicts never have a single cause and are almost always a combination of major and minor issues, including external or inter-state pressures, skewed management of resource opportunities, political grievances and the presence of localised petty conflicts and unresolved disputes. Studies show that it is neither abundance nor scarcity, inequality nor equality, the poor, the elite nor the middle classes that specifically causes conflict. However complex, Cramer suggests that conflict is a rational activity in which people apply economic, political and emotional rationales.

To reduce conflict through development, some researchers have suggested that the focus should not just be on increasing economic well-being, but also on developing cooperation between people as well as ensuring fair management of key resources. They suggest that major disincentives to conflict arise from three elements. The first is growth in the strength of the state, through its use of legitimate force for peace and through its capacity to provide justice and rule of law. The second is growth in private sector activities and the resulting inter-dependence between a wide variety of producers, processors, traders, officials and consumers. The third is growth in the division of labour. Social solidarities develop between people of different ethnicities and professions, promoting new civil society organisations and new forms of accountability.

In many pastoralist areas of Ethiopia, traditional institutions report that their sophisticated means of managing access to key resources, distribution of wealth and inter-personal disputes are dissipating. Their customary institutions formerly played a crucial role in providing the framework for inter-community negotiations – a capability that has begun to change over recent decades. If institutions of governance, such as newly decentralised administrations, can adjust fast enough to new situations, if they are provided with the resources to be effective and if political interests are carefully managed at multiple levels, they and other state institutions will be better equipped to achieve peace.

Beyond management of conflict, governance includes broad issues of political will, voice, representation and distribution of benefits. In addition there are administrative and

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in institutional arrangements relating to national policy integration, revenue and taxation, regional cooperation, relations between modern and traditional institutions and forms of governance that are suited to pastoralist mobility.

These arrangements come under the rubric of federalism and decentralisation. The Federal Democratic Republic of Ethiopia has embarked on a detailed programme of decentralisation that provides considerable opportunities. James Manor, Professor of Political Economy at the Institute of Development Studies, suggests that decentralisation has the potential to provide an underpinning to development, particularly if it includes not only administrative and financial decentralisation, but also devolution of decision-making power to elected local councils. It can provide opportunities for cooperation of customary and state institutions over access to land, regulation and taxation of trade, and distribution of benefits among the population.

14. Key Factors

Research data and evidence, knowledge and capacity are all necessary elements of a functional administration. A decentralised system, says Manor, can increase the level of useful knowledge based on local experience and concerns.

In a number of countries, democratic decentralisation has been found to reduce the frustrations of local populations and increase stability. India is one such example, where decentralisation has created 55,000 new seats in local parliaments and village-level leaders have become active and largely effective in the political process. Local people now make more decisions about local concerns and there has been an increase in voluntary societies that are active on local issues. Civil servants in India today describe how their jobs are more satisfying as a result of increased information flow between citizens and the state. And it is not always the case, as some argue, that decentralisation increases costs to government, or uncontrolled spending by local administrations. Studies show that central controls on budgetary ceilings are easily maintained while effectiveness can increase. In the Indian state of Karnataka, the state government transferred 40% of its budget, including all the decision-making powers, to local administrations. The result was a strong improvement in service delivery at no additional cost to the state. In Brazil, local councils were given control of school budgets, but only if they could show an increased attendance. The result was an enormous growth in enrolment. In one poor state in India where a similar scheme was run, 1.16 million newly enrolled children received education in new schools.

The way in which Ethiopian decentralisation unfolds will have a profound influence on the direction of rural and urban development in pastoralist areas. In west Africa, André Marty describes how decentralisation, introduced in the 1990s to Mali and Niger, has worked well with pastoralist systems. Basic education, healthcare and water service decisions have been transferred to the lowest levels of government. Traditional leaders take part in town councils and can also send delegates. An ethnic group will have representatives in a number of communities by legal right, a compromise between the state and the traditional institutions. One idea that has made decentralisation work well in these primarily pastoralist countries is a downplaying of the importance of physical borders in the protocols and responsibilities of local administrators and mayors. Instead there are systems of reciprocity between communities that has proved an important way of dealing with mobility, taxation, conflict and resource competition.

A second aspect of governance is the achievement of equality and protection of the most vulnerable in society. Stephen Devereux, in his study ‘Vulnerable Livelihoods and the Quality of Governance in South Africa’, records 17 different kinds of informal transfer in operation that give help to the poorest. For example, 18% of poor pastoralist families had their livestock restocked by relatives, and 39% had been lent or donated milking animals in 2004\(^\text{15}\). Such systems go beyond assistance to the poor to focus attention on the distribution of the benefits of production across the population. A decline in this capability and the parallel growth in the use of food aid or state safety nets to deal with vulnerability is likely to have a significant effect on the development of pastoralist society.

Taxation is a third important aspect of governance affecting the success of economic, social and administrative activities. It is clear that pastoralists do already pay sales tax and value added taxes, but direct taxes on mobile livestock have proved difficult to collect. Herders have a tendency to resent taxation when they feel they are not seeing much in the way of appropriate government services. Yet to develop the economic potential of pastoralism and its complementary industries, there is a need for expensive investments in education, roads, veterinary services and small rural centres as well as appropriate administration. Whereas direct taxes on pastoralists are likely to be unsuccessful, Mick Moore, Professor of Economics at IDS, suggests that value added tax has potential as it focuses on the more easily traceable elements of the growing economy, and is relatively non-coercive\(^{16}\). Even if value added tax is collected federally, there is an argument for giving a higher share back to the region that raised it to encourage tax raising and economic growth. He suggests that to achieve an overall improvement in the tax regime, which is beneficial to both government and citizens, a social contract based on

\(^{15}\) op. cit.


serious public discussions and agreements, could provide a way forward.

A fourth aspect is regulation and investment. Given different economic scenarios there will be demands for different levels and types of regulation and investment, with the role of the state, private sector and traditional institutions varying with the requirements of the task. For export trade, for instance, there is a suggestion that the state need only provide an adequate enabling environment that does not punish regional exports and creates incentives for traders to invest in their operations.

Last but not least, is the engagement and inclusion of male and female citizens in influencing decisions at various levels. As James Manor pointed out, countries such as India have found that creating mechanisms for voice and accountability and for gender equality among representatives has not led to ill-informed local decisions, fragmentation of the state or chaotic expenditure, but rather to improved targeting and more efficient use of government resources, including leveraging private resources and skills and increasing citizen satisfaction.
17. Key Factors

Photo © Elena Rue
Section 2

Four Future Scenarios for the Pastoral Economy

1. Sustaining pastoral livelihoods
2. Adding value for diversification
3. Expanding export trade
4. Alternative livelihoods

This section builds on the evidence of the first section to create four hypothetical futures for Ethiopian pastoralism depending on trajectories of natural resources and markets.
Combining understanding about the natural environment, markets and governance, scenarios suggest a range of choices for pastoralists and government to make in order to sustain livelihoods and promote economic, social and political integration. Based on rigorous research and real experience, these imaginary futures, set 20 years from now in 2025, illustrate the dynamics of the pastoral economy and show its potential for adaptation to changing circumstances.

1. Under circumstances where the natural environment is productive and population pressure low, where pastoralists have access to good pasture and are active only in national and local markets, many will wish to maintain a livelihood based primarily on the raising and sale of livestock, sustaining pastoral livelihoods.

2. In conditions where pastoralists are under natural resource pressure, but receiving strong demand from national and international markets for pastoral products, members of pastoralist communities will more likely expand into milk processing, meat processing and improving the quality of export skins and hides as a strategy for adding value for diversification.

3. If Ethiopian pastoralists and traders gain increasing access to international markets and if natural resources are abundant, they may move quickly to scale up the quality of production to take advantage of high prices for animals and animal products abroad in a scenario of expanding export trade.

4. Finally, where resources are scarce and livestock markets inaccessible, some pastoralists will need to find alternative livelihoods, shifting away from pastoralism towards complementary activities such as tourism or financial services.

17 These scenarios were created by the Ethiopian team that took part in the seminar at the University of Sussex. Scenario building is part of new thinking around creating policy. For more details on using the scenarios methodology for policy processes, see for example, N. Fuller-Love, P. Midmore and D. Thomas (2006) ‘Entrepreneurship and Rural Economic Development: a Scenario Analysis Approach’, International Journal of Entrepreneurial Behaviour & Research, Vol. 12 No. 5, pp. 289-305, Emerald Publishers.
1. Sustaining Pastoral Livelihoods

With mechanisms in place to guarantee pastoralists access to key natural resources, 20 years from now a vibrant pastoral production system continues. Access to high-value export markets however, remains elusive to pastoralists.

A large portion of the Ethiopian pastoralist population remains primarily dedicated to raising livestock for the sale of live animals and animal products and for maintaining social ties. Grazing animals dot the lowland landscape and small, often temporary settlements provide for their caretakers. Mobility is still a key capability, whilst agro-pastoralism also plays a part. Social services such as education and health are tailored to mobile lifestyles in pastoral areas and support the growth of the rural economy.

Decentralised land-use institutions guarantee dry season access to key resource areas for pastoralists and promote cooperation between farmers and pastoralists. Legal instruments provide clarity as to rights of land use, and traditional and modern knowledge are used in guiding range management decisions. Pastoralists work with government on the control of bush encroachment to conserve grazing pasture. Good relations and regular communication between traditional and local authorities remain critical for implementing land use agreements that relate not just to small pieces of land or individual water points, but to entire rangeland systems.

While the European and Middle-Eastern markets may remain hard to access, many pastoralists are able to hedge the risk of any fall in national demand through increased cross-border trade with neighbouring countries. This is based on agreements for regional integration and free movement of stock and on measures to allow for the taxation of
livestock herded or transported to markets across borders. If demand declines, there is enough diversity in the economic system to weather the difficulties. (See scenario 4 – alternative livelihoods).

Investments in infrastructure, notably roads and communications, help to ensure a reliable demand, to provide timely market information and to reduce transport costs by connecting pastoral areas to small production centres. Such measures maximise prices for the producer. The national economy is also a prime concern for pastoralists under these conditions, as falling urban income can significantly hurt the demand for pastoral products.

The continued health of livestock populations and grazing land is maintained by access to good grazing, but also by access to animal health care. Additional training and improved systems of certification for community-based animal health workers helps to prevent the spread of disease while additional laboratories monitor and react to disease outbreaks. Regional cooperation on the regulation of veterinary drugs prevents bogus or expired drugs from circulating in the country.

The private sector and government work together to market livestock products within Ethiopia and the Horn of Africa. Policies and investments promote the establishment of meat and milk processing enterprises that supply local markets (see scenario 2 – adding value). Through support for breeding and the conservation of genetic stock, livestock becomes increasingly productive and provides greater variety for Ethiopian consumers. If externally-stimulated conflict expands, local arrangements for access to key resources and markets are badly affected. Pastoralists are not able to move their animals and so food production is jeopardised. Because large external conflicts can rekindle local conflicts, major efforts are made by local and national authorities, working closely with traditional institutions, to protect against spiralling crises.

Policy makers recognise that the existing pastoral production system is a source of strength, and they have moved to enhance it with a combination of market development, primary veterinary service provision and effective resource management/land administration. Improving links to Ethiopian and regional markets has benefited national integration and helped to secure livelihoods across the lowland population.
Despite efforts to protect pasture from encroachment and to enable local and customary systems to negotiate dry season access to key resources for pastoralists, global climate change leads to increasingly unreliable rainfall by 2025. Livestock production and farming fail to keep pace with population growth and some, but not all, pastoralists have begun to find other ways to make a living. High-price foreign markets become more accessible to Ethiopian products and ex-pastoralists begin to develop new livestock-based products for sale at home and abroad.

Successful pastoralists are those that are still able to achieve high levels of mobility, while others are diversifying into a range of business activities such as fattening, meat and milk processing and high quality skin and hide production that add value to pastoral production, improving the livelihoods of both livestock owners and those engaged in diversified enterprises. Diversification develops beyond pastoral-related products to others that are not dependent on rainfall and livestock, such as tourism (see scenario 4 – alternative livelihoods).

The Ethiopian lowlands see rural towns emerge and quickly grow, bolstered by small processing centres and the businesses that provide goods and services. Pastoralists become more market oriented and pastoral women find new economic opportunities, leading them to more prominent roles in local communities. Local authorities administer the collection of value added taxes and manage investment in small urban centres. New roads and communication systems help to get products to market intact and on time.

The growing importance of livestock production to other industries has led to the development of a swift, regionally integrated and well-funded disease response system. The rising price of livestock has justified higher private and public expenditure on animal health services, provided by animal health assistants and trained veterinarians. Extension services are tailored to the needs of mobile pastoralist producers as well as to the needs of new processing industries.

The disappearance of some key resource areas and increased demand for water from rural settlements puts pressure on the animal production system. Traditional leaders, farmers, pastoralists, members of cooperatives, owners of small businesses and local authorities all take part in councils. They hold forums to discuss resource management and participate in creating response systems for droughts and floods. Legal instruments provide clarity as to rights of land use and traditional and modern knowledge come together in guiding range management decisions.

To foster value added industries, policies provide the legal and administrative mechanisms for ensuring trade between rural and urban areas and across national borders. National associations of the different producer groups emerge to identify key markets, stimulate demand abroad and keep abreast of technological developments.

Appropriate skills and vocational training prove critical to the success of certain processing areas. As some ex-pastoralists gain experience in processing, more and more are eager for greater access to credit in order to establish their own enterprises. Investor-friendly policies and new infrastructure help draw private investment.
to rural towns. Careful attention to the creation of value chains, including provision of finance and insurance to pastoralists, ensures a fair distribution of benefits and avoids the risk that opportunists stifle fledgling enterprises.

Too much reliance on rain-dependent products adds an element of risk to this scenario. High levels of conflict also endanger success by interrupting investment and access to markets. Unfair market protection by neighbouring countries and across the world, undermines progress in this scenario, as success depends strongly on the market. But with the right combination of market access, training, infrastructure, services, capital and fair administration, this scenario avoids excessive risk and gives a proportion of the pastoralist population viable choices in the value added sector that also benefit the wider Ethiopian economy. Livelihoods are more diverse now and more secure than was previously the case. The benefits are spread quite evenly across the population and between men and women.
With local land use management allowing sufficient resources for sustaining livestock production and a further opening of foreign markets to Ethiopia within the next 20 years, pastoralists export increasing quantities of animals and animal products. Pastoralists and traders enjoy immediate benefits from the rising price of livestock, while increased foreign exchange inflow boosts the value of the Birr.

Pastoralists use easily accessible market and technical information to respond to price incentives, quickly boosting production and delivery and improving the quality of their product. Higher prices and steady demand help diminish vulnerability. They enjoy legal rights of access to land and other productive resources, and carry out their responsibilities for protecting the environment. These rights and responsibilities are administered by institutions that include both traditional and state representation.

Yet with more and more pastoralists reliant on foreign markets, new risks arise. Pastoral livelihoods quickly become contingent on tariffs, quality and health requirements and other barriers to trade. Livestock subsidies in other countries also threaten to erode the competitiveness of Ethiopian pastoralists, and with Ethiopia dependent on access to international ports through neighbouring countries, regional conflicts significantly disrupt trade.

To protect the interests of pastoralists and the nation under such circumstances, pastoralists maintain their systems of mutual support and insurance. At the same time Ethiopia has a well-planned export strategy to diversify markets and limit the possibility of a one-off event paralysing sales. Effective legal and administrative frameworks manage trade and mediate trade disputes. Bilateral and regional
agreements improve the predictability of trade routes that were formerly intermittent. With pastoralists and traders learning to trust and cooperate with government to keep key trade routes open, economies of scale make trade more efficient and help governments to collect taxes. Cross-border trade becomes more flexible, bringing formerly separate areas into contact, creating new networks and building common interests that reduce the incidence of conflict.

Significant investment ensures that supply of livestock and animal products is maintained and that standards and certification meet the requirements in foreign markets. Policies promote commodity-based trade with fewer veterinary and disease control requirements. Pastoralists, traders and government set priorities together, basing commodity and market decisions on clear understandings of benefits and risks.

A nationally and regionally integrated response mechanism is in place to prevent disease from spreading among the highly valuable livestock populations, including improved communication among pastoralists. These new information channels also transmit fast and reliable market information to allow pastoralists to make the right decisions.

New credit, banking and insurance services expand across pastoral areas as ways are found to accept livestock as a form of collateral. Private investment in market facilities, holding grounds and abattoirs is encouraged. Taxes and levies raised from exports are used to fund improvements in education and health, benefiting the wider community, as well as for infrastructure and export-oriented services. Regulation is geared to increasing competition at all levels of the market chain, rather than to managing it. Co-operatives are present and are competing actively with individually owned businesses. More and more women become involved in the export trade. Accountable customary practices of redistribution are supported by the state to help narrow the gap between those benefiting most from trade and those benefiting least.

High levels of conflict affect this scenario by interrupting investment and access to markets. Market integration is reduced and market efficiency undermined, as control of valuable export routes and commodities becomes a focus of conflict. However traders and suppliers linked in value chains that cross ethnic and other boundaries actively move to prevent conflict and protect their businesses. The scenario is also vulnerable to supply side failures, resulting from drought or disease, as well as demand side failures, such as market protectionism and increasingly high trade barriers.

Public and private investments in animal health and market infrastructure, well informed export strategies, effective trade negotiations and policies to promote capital investment and more equitable growth have led to the success of the export scenario. The pastoral economy has become better integrated with the national and international economy and there are increased opportunities for employment and investment. There are benefits for small and large entrepreneurs and cooperatives, suppliers and employees, but fair distribution of benefits relies on good administration.
A reduction in access to quality grazing land and a lack of market access in 2025 prompts many pastoralists and farmers to leave a rain-dependent livelihood altogether in the search of better opportunities in rural towns and urban centres. The increased displacement of pastoralists leads to a temporary surge in reliance on food aid and public cash transfers, but at the same time new livelihood opportunities begin to open up, particularly in small towns. Tourism, communications, education and financial services all see growing levels of investment and return.

Educational and vocational skill training centres are established in towns across pastoral areas, providing primary and secondary education and access to tertiary education, especially for women, but also offering courses on how to establish a variety of small enterprises. Educated people have become more mobile in search of new sources of employment. Ethiopians abroad send money back home to their relatives in pastoral areas, who in turn look for productive investments that are less vulnerable to the availability of land and rainfall, or to political or administrative problems. Government policies offer tax incentives to encourage private investors to invest in pastoral areas, especially where investments diversify and strengthen pastoral production.

The pastoralists who continue to herd animals gain from the increased supply of businesses and services and continued demand for livestock products. People who move into alternative livelihoods continue to be closely linked to the pastoral system, invest in it and may rejoin it at will. Pastoralists and traders invest in the growing enterprises. Traditional and state administrations work together to ensure that new economic activities are successfully integrated into society and are regulated effectively.

The state also makes significant investment in basic infrastructure such as water, electricity and telecommunications in rural towns to attract further investment and to accommodate migration to these centres. Roads connecting regional centres do not make long detours via the capital, providing more freedom of movement across Ethiopia and the region.

The inhabitants of small towns, those running small businesses, and especially those running tourist enterprises, are badly affected by any rise in externally influenced conflict or criminality. In the new urban centres the delicate balance of social ties begins to break down as people become less dependent on the old traditions and culture. Local administrations, traditional leaders and civil society work together to keep communities active and protected against the evils of unrestrained urbanisation.

The move to alternative livelihoods has been achieved through a combination of education and training, tourism promotion, sensitive administration and a favourable climate for private investment, together with a vastly improved infrastructure. Small urban centres in pastoral areas have become the sites of new businesses that are no longer dependent on unreliable rainfall. The poorest and most vulnerable in society have access to better living standards; they are less reliant on food aid and less likely to engage in violent conflict. Livelihoods have become more diverse and secure and the range of resources available in pastoral areas is better utilised.
These scenarios are not entirely imaginary. Today in Ethiopia’s lowlands the four scenarios – sustainable pastoral livelihoods, small industries adding value, export trading and diversification into non-agricultural activities – already exist. Looking forward 20 years, the potential for each is high, but people are held back by lack of knowledge, infrastructure and enabling policy. The deliberations between scholars and leaders recorded here show that the future, although uncertain, need not be dismal. Their discussions have highlighted three key points that are central to understanding pastoralism and to arriving at appropriate responses.

First and foremost is recognition of the ecological underpinning of this largely natural resource-based system. The key resource areas are vital to all who wish to make a living in the lowlands. To make the best and most sustained use of natural resources requires mobility and effective administration, along with a thorough understanding of the science relating to these very particular environmental systems. Even those who diversify away from pastoralism or farming into trade, tourism or services, will continue to rely indirectly on livestock production and on the key resource areas.

Second, access to markets will profoundly affect the abilities of all members of lowland society to make a good living and contribute to national wealth and integration. As stated on page 10, across much of the world, the livestock sector is growing faster than the agricultural sector as a whole, and by 2020 it is predicted to be the most important sub-sector in terms of added value. Whether Ethiopian pastoralists access local, national, sub-regional or international markets, or most likely a continuously shifting combination of all of these, markets will be a major source of revenue, growth, employment and interdependence.

Third, management of access to key resources and facilitation and regulation of market behaviour will be crucial to a peaceful and productive society, as will efforts to ensure fair distribution of the benefits of growth, freedom of choice and development of social responsibility. Not only conflict resolution, but more broadly good governance, administration and voice is the third part of a successful future for pastoralism.

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18 See Annex I for policy options
## Annex I: Policy Options

<table>
<thead>
<tr>
<th>Marketing and trade strategy</th>
<th>Sustaining pastoral livelihoods</th>
<th>Adding value for diversification</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Marketing to promote domestic and cross-border trade.</td>
<td>• Marketing to support domestic, cross-border and export trade in processed livestock products.</td>
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<tr>
<td>• Facilitation of sales by smaller producers (groups, cooperatives).</td>
<td>• Facilitation of marketing and sales by different producer associations.</td>
<td></td>
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<tr>
<td>Land use management and land tenure</td>
<td>• Tenure rights and access to key resources (dry season grazing/water).</td>
<td>• Tenure rights and access to key resources (dry season grazing/water).</td>
</tr>
<tr>
<td>Pastoral linkages to agriculture and industry</td>
<td>• Institutional development to promote negotiation and cooperation between agricultural producers and pastoralists, especially over dry season access to key resources.</td>
<td>• Institutional development to promote joint cooperation and planning between value-added producers and pastoralists.</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>• Roads to domestic markets and borders.</td>
<td>• Small town development for investment.</td>
</tr>
<tr>
<td>Investment and business development</td>
<td>• Credit and financial services.</td>
<td>• Market infrastructure, especially for value added products.</td>
</tr>
</tbody>
</table>
| Animal production and range management | • Bush control, especially of *Prosopis*.  
• Breeding stock for improved resilience.  
• Traditional range management. | • Bush control, especially of *Prosopis*.  
• Breeding stock for improved resilience.  
• Traditional range management. |
| Veterinary services | • Low cost curative veterinary services.  
• Regulation of veterinary drugs. | • Medium-cost preventative veterinary services.  
• Regulation of veterinary drugs |
| Education and skills | • Basic formal education, tailored for mobile pastoral lifestyles. | • Formal education, especially for women.  
• Training in vocational and business skills. |
| Risk management and safety nets | • Drought early warning and insurance.  
• Income diversification start-up support. | • Drought early warning and insurance.  
• Rapid disease response. |
<table>
<thead>
<tr>
<th>Expanding export trade</th>
<th>Finding alternative livelihoods</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Marketing to support national, cross-border and export trade in diverse markets.</td>
<td>• New business and service opportunities to generate employment and service provision.</td>
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<tr>
<td>• Marketing of Ethiopian livestock and meats.</td>
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<tr>
<td>• Provision of market information.</td>
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<tr>
<td>• Tenure rights and access to key resources (dry season grazing/water).</td>
<td>• Urban and rural planning and development.</td>
</tr>
<tr>
<td>• Institutional development to promote negotiation and cooperation between agricultural producers and pastoralists, especially over dry season access to key resources.</td>
<td>• Promotion of agriculture, industry and services to absorb labour that is leaving pastoralism.</td>
</tr>
<tr>
<td>• Market infrastructure, especially for live animals.</td>
<td>• Small town development for investment.</td>
</tr>
<tr>
<td>• Roads to terminal export.</td>
<td>• Roads to link small urban centres.</td>
</tr>
<tr>
<td>• Credit and financial services.</td>
<td>• Credit and financial services.</td>
</tr>
<tr>
<td>• Incentives for investment in export facilities.</td>
<td>• Incentives for investment in small towns, including for members of the diaspora.</td>
</tr>
<tr>
<td>• Bush control, especially of <em>Prosopis</em>.</td>
<td></td>
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<tr>
<td>• Breeding stock for improved export value.</td>
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<tr>
<td>• Traditional range management.</td>
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<tr>
<td>• High-cost veterinary services to protect export markets, including through quarantine, surveillance, vaccination and quality certification for exported livestock products.</td>
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<tr>
<td>• Regulation of veterinary drugs.</td>
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<tr>
<td>• Basic education, tailored for mobile pastoral lifestyles.</td>
<td>• Formal education, especially of women.</td>
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<tr>
<td>• Training in specialist skills for high value export trade.</td>
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<tr>
<td>• Drought early warning and insurance.</td>
<td>• Productive safety nets.</td>
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<tr>
<td>• Diversified export markets.</td>
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<tr>
<td>• Income diversification start-up support.</td>
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</tbody>
</table>

Photos © Kate Eshelby and Andrew Heavens
Annex II: Brighton Seminar Participants, December 2006

Presenters

**Professor Ian Scoones** is a Fellow at the Institute of Development Studies. An agricultural ecologist, he works on institutional and policy issues. His books include: *Rangelands at Disequilibrium*, *Living with Uncertainty: new directions for pastoral development in Africa*, and *Understanding Policy Processes: cases from Africa*.

**Stephen Anderson** of the Food Economy Group specialises in institutional facilitation and reform and the management of livelihood and food security programmes including disaster preparedness and recovery.

**Dr. Christopher Cramer** is Senior Lecturer in Political Economy at the School of Oriental and African Studies, University of London. His research interests include the political economy of violence (and of post-conflict reconstruction) and rural labour markets in sub-Saharan Africa. In 2006 he published *Civil War is Not a Stupid Thing: Accounting for Violence in Developing Countries*.

**Professor John Gaventa** is a political sociologist with the Institute of Development Studies specialising in participation and development. He has written widely on issues of participation, power and citizenship in the North and South. He is Director of the Development Research Centre on Citizenship, Participation and Accountability.

**Professor Katherine Homewood** is Head of Department of Anthropology at University College, London. She has specialised on land use, livelihoods change and wildlife conservation in east African rangelands, and publishes in both natural and social sciences journals. Her forthcoming book deals with the Ecology of African pastoralist societies and she is co-editing a volume on Livelihoods and Land Use Change in Maasailand.

**Sir Richard Jolly** is a development economist. From 1996-2000 he was Special Coordinator of UNDP’s Human Development Report; from 1982-95 he was Deputy Executive Director of UNICEF and from 1972-1981 Director of the Institute of Development Studies.

**Professor David Leonard** is a Fellow at the Institute of Development Studies, specialising in the delivery of public services to rural populations in Africa. He has worked on the organisation of veterinary services, human health care, agricultural extension and higher education, as well as on the political economy of rural development.

**Professor Peter Little** is Chair of the Department of Anthropology at the University of Kentucky and has more than two decades of experience doing field research and writing on East Africa, including comparative research on social change, development and globalisation with a focus on pastoralists.

**Professor Mick Moore** is a political economist at the Institute of Development Studies, working on institutional and political aspects of development; the causes of ‘good’ and ‘bad’ government; the effects of government revenue sources on governance; and the relationship between politics and private enterprise in poor countries. He is the Director for Development Research Centre for the Future State.

**Dr. André Marty** is a sociologist who has worked extensively in Sahel pastoral and agro-pastoral areas, mainly in Niger, Mali and Chad. He is now working for the *Institut de Recherche et d’Applications des Methodes de Developpement*, based in Montpellier, France.

**Professor Peter Midmore** is Professor of Applied Economics at the University of Wales, Aberystwyth specialising in analysis of rural and regional policy. His work includes assessment of the employment impact of Common Agricultural Policy reform and advising the Welsh Assembly Government on the future for agriculture and the countryside.

**Patta Scott-Villiers** is a social scientist with the Institute of Development Studies, specialising in communication, governance and pastoralism. She is Programme Coordinator for the UN OCHA Pastoralist Communication Initiative in Addis Ababa.

**Professor Jeremy Swift** specialises in the development of pastoral economies in Africa, the Middle East and central Asia. His particular interests include poverty, famine, land tenure and pastoral governance.

**Mike Wekesa** is a senior consultant with Kesarine & Associates, a consultancy firm working in the greater Horn of Africa, eastern and southern Africa. He has considerable experience in pastoral livelihood systems, drought and conflict management, social protection and food security issues.

Deliberators

Afar National Regional State:
**Amin Abdulkadir**

Ministry of Agriculture and Rural Development:
**Getachew Felleke, Akloweg Nigatu**

Ministry of Federal Affairs:
**Gifawosen Tessema**

Pastoralist Community Development Project:
**Fekadu Abate**

 Ministry of Foreign Affairs:
**Amb. Koang Tutlam Dung, Eyob Tekalign**

Oromia Pastoralists’ Association:
**Nura Dida**

Pastoralist Affairs Standing Committee:
**Hon. Beshir Ali, Hon. Mear Ali Sirro**

Pastoralist Forum Ethiopia:
**Abdi Abdullahi**

Somali National Regional State:
**Sultan Abdi Ali Shegha**

Southern Nations, Nationalities and Peoples Regional State:
**Dr. Kebede Kanchula**

South Omo Zone Administration:
**Dr. Debebe Gashawbeza**

Yabello Pastoralist Development Bureau:
**Kedir Abdu**
The Future of Pastoralism in Ethiopia

Ethiopian representatives from the Federal and Regional governments and from traditional institutions met at the University of Sussex in Brighton, England in December 2006 to deliberate over the state of pastoralism in Ethiopia. They heard and discussed evidence from leading thinkers and made a new analysis of potential futures. This publication summarises the outcomes.