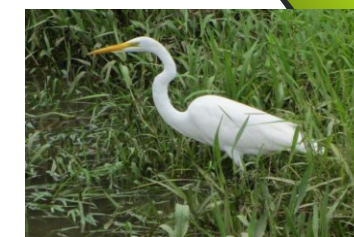


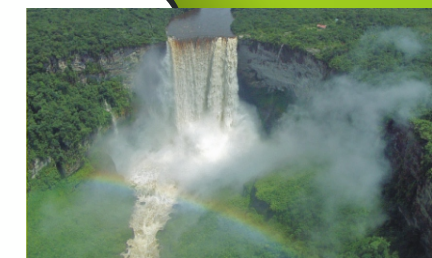


**MINISTRY OF NATURAL RESOURCES AND THE ENVIRONMENT  
GUYANA LANDS AND SURVEYS COMMISSION**



**THE NATIONAL LAND USE  
PLAN OF GUYANA  
SUMMARY**

*Planning for the Future*



**February 2014**



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In collaboration with the

The Guyana Lands and Surveys Commission

&

The Ministry of Natural Resources and the Environment

*The National Land Use Plan could be downloaded or viewed on the following websites:*

- [www.lands.gov.gy](http://www.lands.gov.gy)
- [www.nre.gov.gy](http://www.nre.gov.gy)



## What is a Land Use Plan?



*Planning is about the future - about how we want to live and what we want to leave for our children*

Humans plan - we plan our days, we plan for our families, we plan to build a house or to

buy a car. We plan. We also need to plan how we, as a nation and individually, should use our land.

There is no set definition of land use plan. Plans can be broad and strategic through to detailed and prescriptive, such as zoning plans (what is allowed to be done where). **But** they all have some things in common; they are all about the future, and how to get there. There are four basic steps in planning:

- **Where are we now?** What is the current situation? This typically involves collecting together all necessary information - what resources exist, how they are distributed, what are current demands on those resources?
- **Where are we going?** If you don't know where you are going, then all paths lead there. For effective planning we need to have an idea of where we want to go. How do we want the future to look, in 20, 50 or 100 years time?



Sometimes this may be difficult to define and we need to look at the resources available, anticipate future demands, and then look at opportunities and constraints.

- **How do we get there?** Once we know where we are and where we want to go, we can then ask how we get there. At the national level this may involve developing policies and programmes to facilitate moving forward. At a local level this may mean detailed work plans to achieve specific objectives.
- **How are we doing?** As we implement plans, we need to constantly monitor that we are moving towards where we want to go. If not, then we need to adjust the plan.

## Why a Land Use Plan?

**No more land is being made so we need to use what we have to the best advantage**

Guyana is a big country with not many people; why do we need a land use plan?

The amount of land is fixed; no more land is being made. So we need to conserve and make the best use of the land that we have. This involves **planning** for that use. We need to plan how best to use the land, both to meet the needs of today but also to ensure that future generations – our children and grandchildren – have the resources they need for their lives. Should we clear the forest and grow crops, harvest the trees to make money in international markets, mine minerals and accept the damage that this does to the land, or leave the land as it is? Where should we build our houses, our towns and cities? How will we live?

It is our land and we need to agree on how to use it.

And our land has overlapping resources and the land users have conflicts - loggers and miners, foresters and cultivators, housing developers and so forth. But if we plan for all these uses *in advance* then these conflicts can be avoided, and we can ensure that Guyana's resources – all resources, not just land – are used to the best advantage.

## The National Land Use Plan

To respond to the questions above, a National Land Use Plan has been prepared for the whole of Guyana and, now, more detailed Land Use Plans are being prepared for each of the Regions. The National Land Use Plan talks about:

- **The Current Situation** – maps and data on over 50 different aspects of our resources, what exists, where they exist, and how they are currently used and managed. Topics include the climate, climate change and sea-level rise, the nature of the land (physiography), geology and minerals, soils, land capability for agriculture, forests and forestry, land cover and land use, agriculture, fisheries, biodiversity and conservation, energy, population, poverty, land tenure, Amerindian areas, tourism, and infrastructure.

One of the resource maps in the National Land Use Plan was the Land Capability and Limitation to Agriculture and National Land Use/ Land Cover Map (shown on the next page)

*Continued on page 11*

### Challenges posed by the National Land Use Plan

The NLUP poses more questions than it answers to position us in the right direction. Government continues to set policies. Some key issues are highlighted below.

**Policy:** The key national policy influencing development and land use is the Low Carbon Development Strategy (LCDS). Most of Guyana is forested, providing important ecosystem services, and the LCDS aims to maintain this beneficial situation. The National Land Use Plan highlights present land use, potential and constraints and recommendations. Short, medium and long-term priorities for development and land use, especially how to deal with competing land uses in each of the development periods are planned by various Agencies. Planning ultimately analyses the sustainability of activities such as forestry and agriculture against non-sustainable but high-value activities such as mining.

**Planning:** The NLUP highlights the need to develop the interior; how do we do this while continuing to serve the interests of the majority of Guyanese who live in the Coastal Plain? Infrastructure is obviously key; but how much do we invest to service the sparse and scattered population in the interior? With such a small population, Guyana must rely on exports; how do we develop export markets and should we continue to export through Georgetown or develop a new port at New Amsterdam?

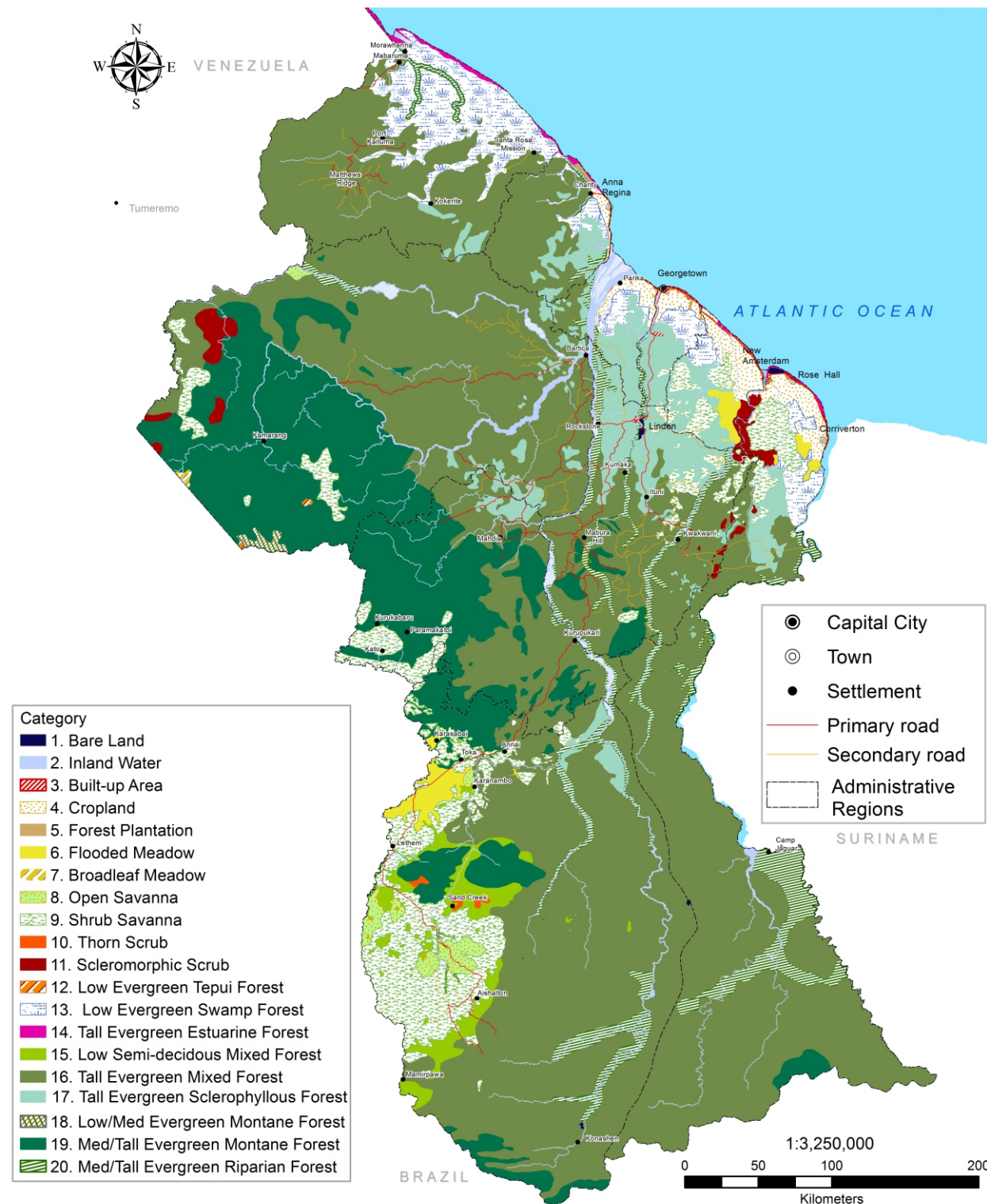
**Information:** There was inadequate information for planning in key areas, during development of the NLUP. Some key information needs include an examination of hydropower potential within the framework of the LCDS; more precise information on biodiversity so that key areas can be properly protected; improved information on forest value – not just its timber value but the value of the ecosystem and other services provided to Guyana and the World; improved soil information in areas of high potential soils, so that the best soils can be more precisely defined and conserved; and improved information on mineral occurrences so that mining can be focused in the highest potential areas and conflicts with other land uses can be foreseen and resolved in advance.

**Institutional coordination:** For the very first time in Guyana, the NLUP brought together all the available map (spatial) information on resources and resource use, and converted these to one format. The different concerned agencies now need to communicate better so that this valuable database is maintained.

**Beneficial occupation:** Especially in the Coastal Plain, large areas of land are not used for the purpose specified in the land leases, with some areas actually abandoned. Meanwhile, people are clamouring for land in these same areas. How can the Government ensure that land is used for its most beneficial purpose? Should non-conforming leases be cancelled, the land reverting to the State to be leased to more productive investors? Should land rents be raised, even to levels achievable in the private sector, to encourage more intensive uses? How would this affect poorer farmers and how could they be protected?



### Land Use / Land Cover



### Who prepared the Plan?

The Guyana Lands and Surveys Commission (GL&SC) is responsible for national land use planning. This reflects its role as the custodian of State lands, and its responsibility to ensure wise use of that land.

It prepared the National Land Use Plan (NLUP) with help from the European Union. It is now preparing Regional Land Use Plans, to support Regional development planning.

But it did not do this alone. During preparation, consultative meetings were held in every Region of the country. Detailed discussions were also held with all relevant agencies and interest groups. For the Regional planning, more detailed discussions are being held with communities and local government.

And now the Plan is being distributed for public review and comment. Because the Plan is OUR plan, for our land, and for our future.

*The NLUP belongs to all the people of Guyana*

### What's next?

The Plan used existing information, collecting it all together in one place for the first time. All this information is available from the GL&SC – maps, statistics, and analyses.

To improve the Plan we need to obtain additional data in key areas, as outlined above. We also need decisions affecting key issues. And we need your ideas and inputs.

Planning also never stops. The plan will be regularly updated as new and improved information comes available, or as Government decisions and policies open opportunities and close other pathways. Key to keeping the Plan up to date is to ensure free information exchange between agencies.



## How do I get involved?

The National Land Use Plan provides a framework for national development. It contains a huge amount of information about Guyana's resources and how we use them, and about the potentials for, and constraints on, development.

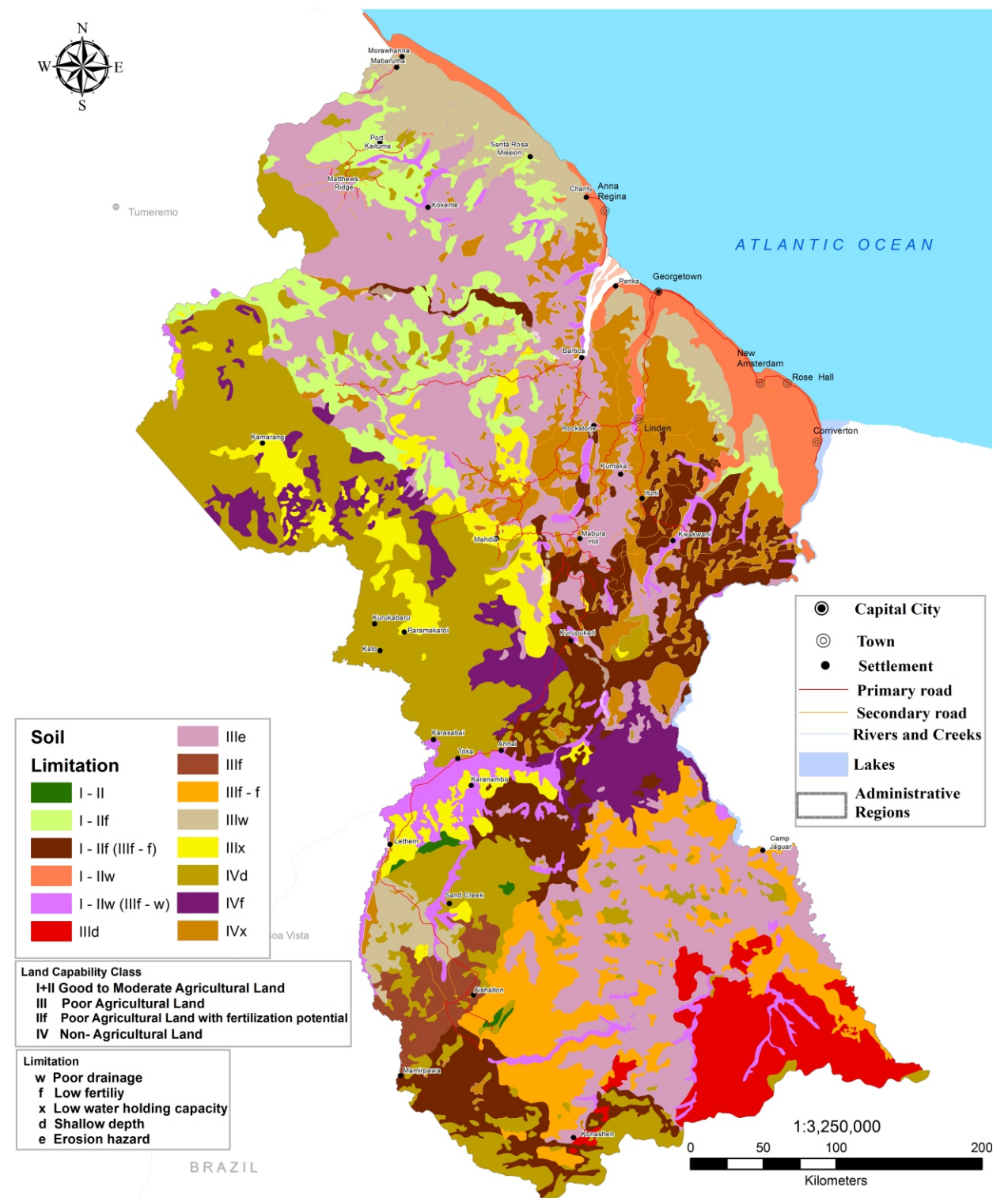
Read the National Land Use Plan. Think about the development of your community, your Region, your Nation. Think about the questions raised in the Plan. Think about the choices to be made. And then tell the government what you think.



CHOICES



## Land Capability and Limitation to Agriculture



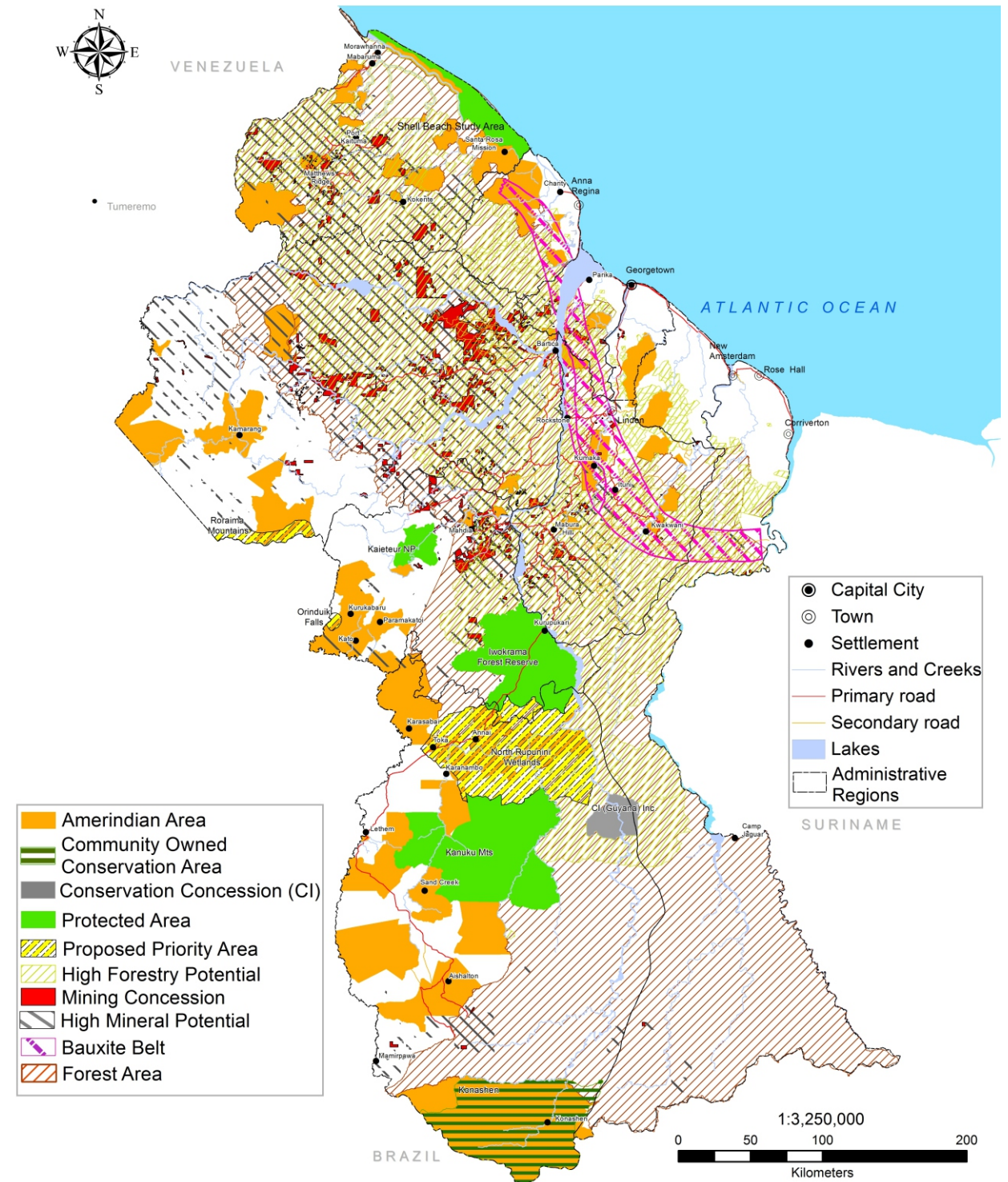
## What remains to be done?

The National Land Use Plan used information which was already available and prepared analysis from that data which you would have seen in some of the maps. However, there were important information gaps. Filling these gaps would allow for improved planning. Key needs are:

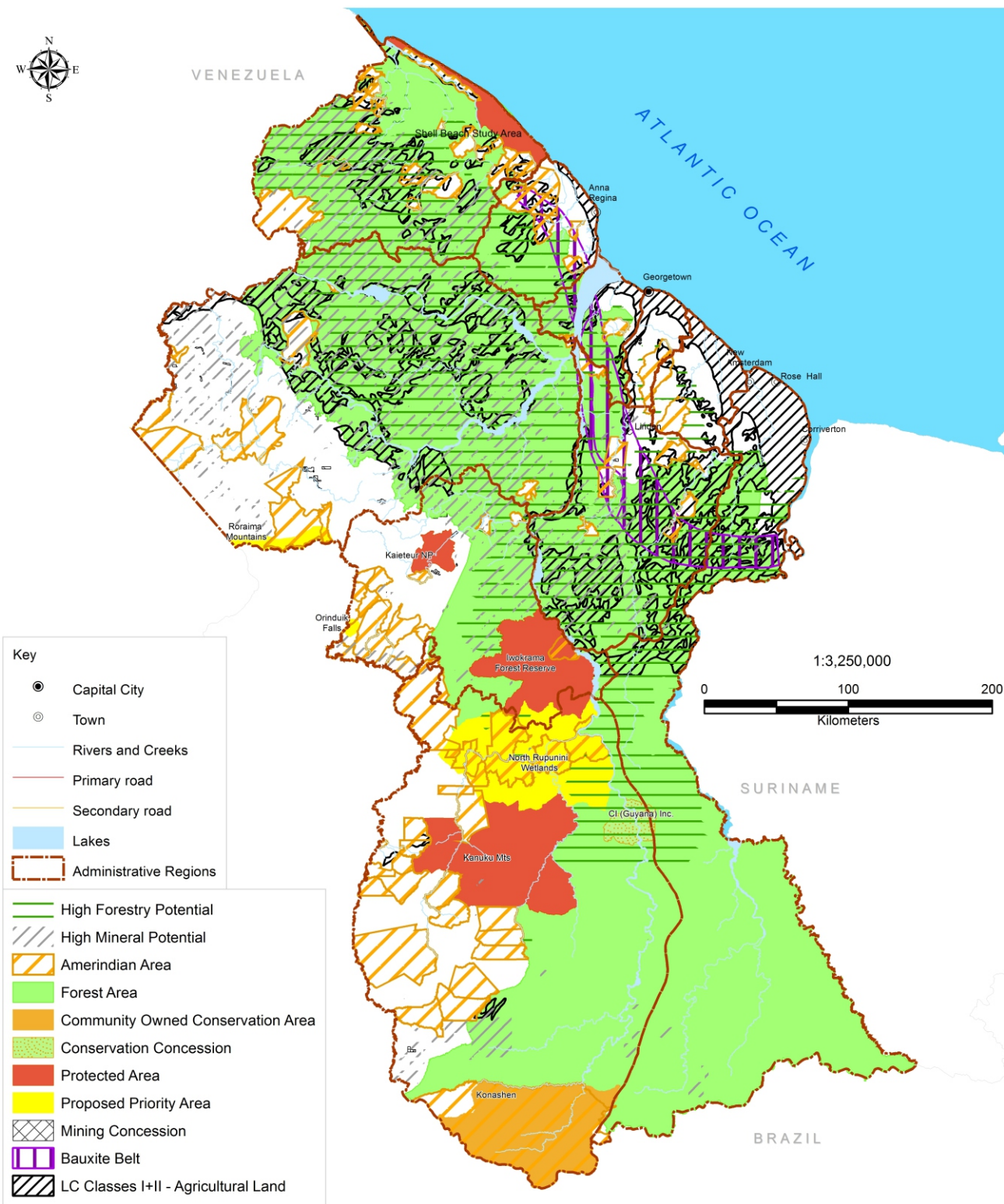
- Strengthening Policy, and monitoring and enforcement and updating Regulations and Laws
- We need better information on physical resources – a better understanding of mineral potentials and locations, of hydropower potentials within the Low Carbon Development Strategy and REDD+ commitment, more information on biodiversity and on forest value, and more detailed information on the location of good agricultural soils.
- Government promotes mining, forestry, agriculture and tourism, where these compete, what should determine the priority? Forestry and agriculture are more sustainable than mining. And development is hampered by poor infrastructure; what are the priorities for infrastructure and when will investments be made?
- Planning procedures and data for informed decision making need to be strengthened. In particular, cooperation and information exchange between agencies need to be strengthened and formalized.
- In the coastal plain there is competition for land. Yet significant areas of land are abandoned or not used. Much of the land demand could be met by enforcing better use of the land. Revoking of leases which are not being used for the stated purpose, and increasing land rents to encourage more productive uses, are ways that this issue is being resolved.

*The Government's role is to provide vision and direction. Where do we want to be in 50 years? And how to get there?*

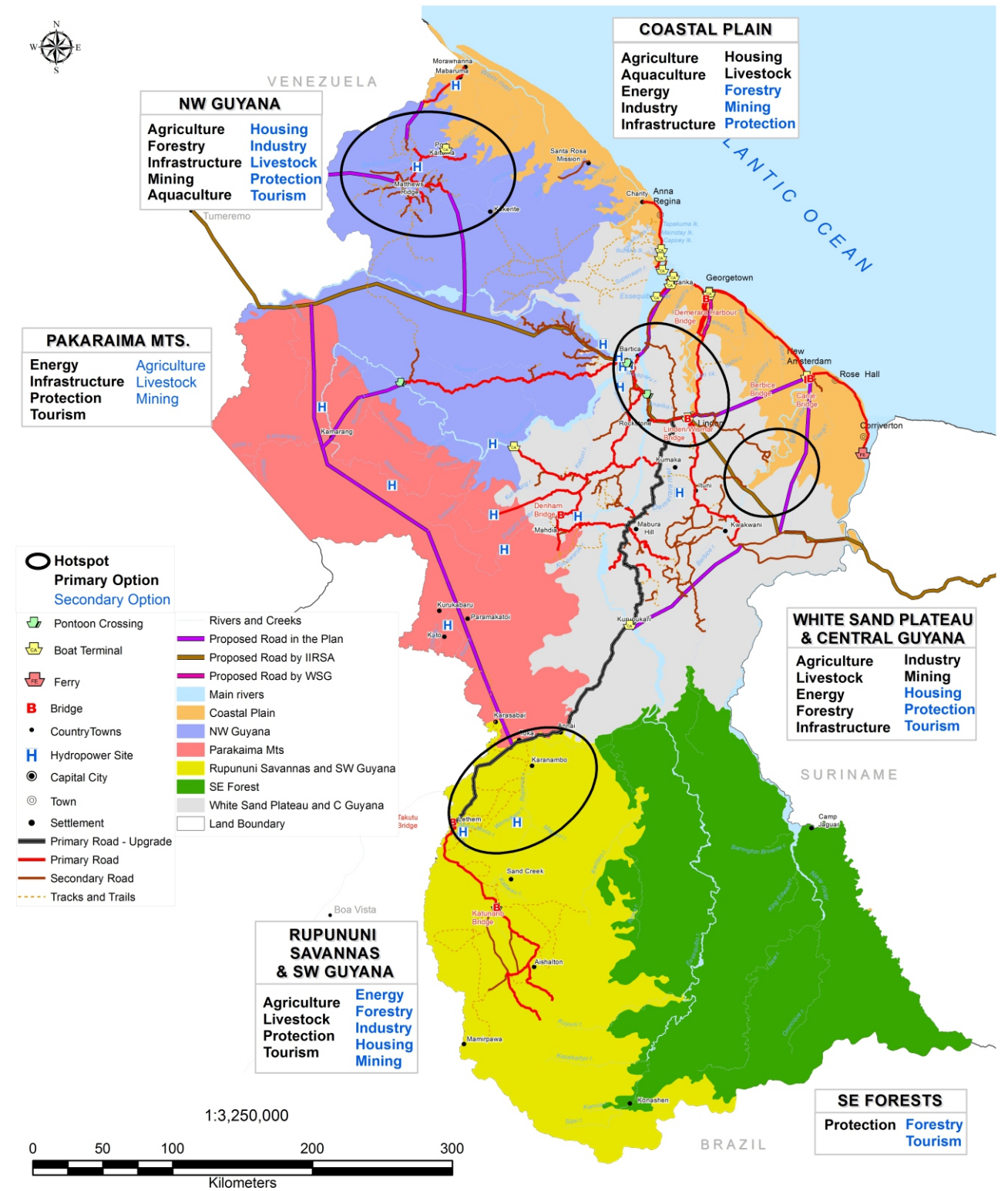
## Potential for Biodiversity Protection, Potential Forest and Mineral Resources



### Assessment for Potential of Biodiversity Protection, Forestry, Mineral Resources and Agricultural Lands



### Development Options





## So what about the future?



The Planning Team looked at all the information. They divided the country into six areas based on the nature of the land, and identified priority and secondary development options for each area. This is shown on the Development Options Map.

Many of these options overlap in that they use the same areas of land. Four key areas, or 'hotspots', where competing land uses are particularly severe and/or provide transport links and/or power sources, were identified and are shown on the map:

- **Mathews Ridge/ Port Kaituma** - with high potential for forestry, mining and agriculture. The constraints are access and power. Access could be developed from Aurora through Kokerite to Mathews Ridge, and power generation if the Eclipse Falls Hydropower (4 Megawatts) is developed.
- **Bartica-Linden** - with its forestry and mining uses, potential for agriculture, and its position as a centre linking areas of production to transport links and coastal port(s). Mined out land around Linden could be developed for industry and export processing
- **Intermediate Savannas - Canje Basin**, with potential for agriculture, livestock and plantation forestry or biofuels, coupled with an expansion of bauxite mining. Development will require linkages with processing centres, such as Linden and export ports such as New Amsterdam, and potentially with Venezuela and Surinam. The Tiger Hill (15MW) hydropower site on the Demerara River could power agro-processing industries.
- **North Rupununi - Savannas area** is suitable for large-scale farming (requiring high capital costs), livestock, and plantation forestry. There is easy market access to northern Brazil or to Georgetown and New Amsterdam as roads are developed. The area also has potential oil deposits. The area is an important wetland with potential for conservation and tourism.

Potential road developments, providing connections to all parts of the country, the development hotspots, potential hydropower sites and tourist areas, and export points are also shown on the map.

*The Coastal Plain is nearly fully occupied. Future development and settlement needs to look to the interior, and the resources and opportunities that exist there.*

## Planning with You

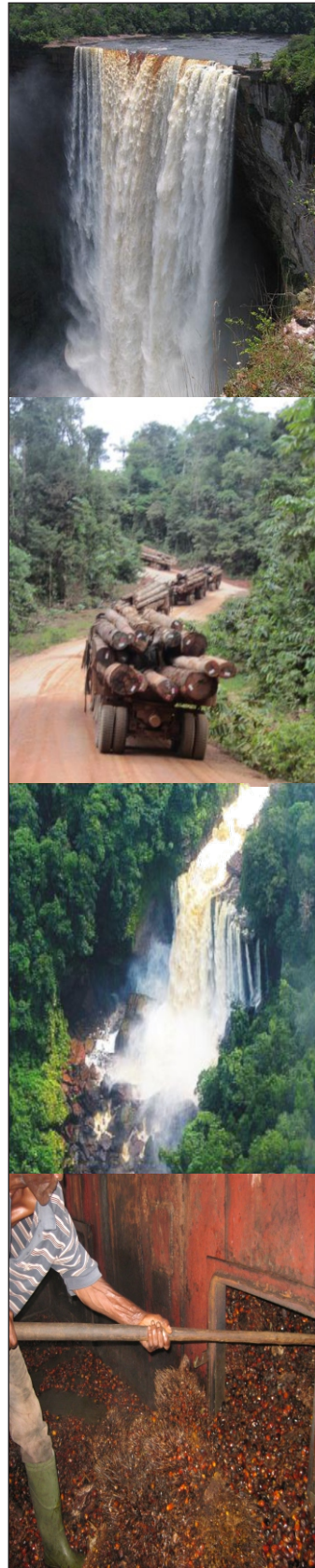
The National Land Use Plan brings together and analyses much existing information. This is often a technical process, as described in the Box on page 7. However, planning can never be completed without consulting the people who may be affected by the plan – YOU.

During the development of the National Land Use Plan, public meetings were held in every Region of the country. Maybe you participated in those meetings. Here we heard about the issues which affect the everyday lives of people. We also heard about people's hopes and dreams for the future. These have been taken into account in preparing the National Land Use Plan. And once the draft Plan was finalised, this was made available for review across the country. Your comments and suggestions have been taken into consideration in preparing the final National Land Use Plan.

We are also working to prepare three Regional Land Use Plans. These are more detailed than the National Plan, and involved more intensive consultations with communities. Again, we have heard your concerns, and are incorporating them into the Plans being developed.

The National Land Use Plan is not an abstract document. It is a plan for Guyana, for YOU. We could not have prepared it without your inputs, and it cannot be implemented without your help. Despite the technical nature of much of the Plan, ultimately it is about and for the people of Guyana, including future generations.





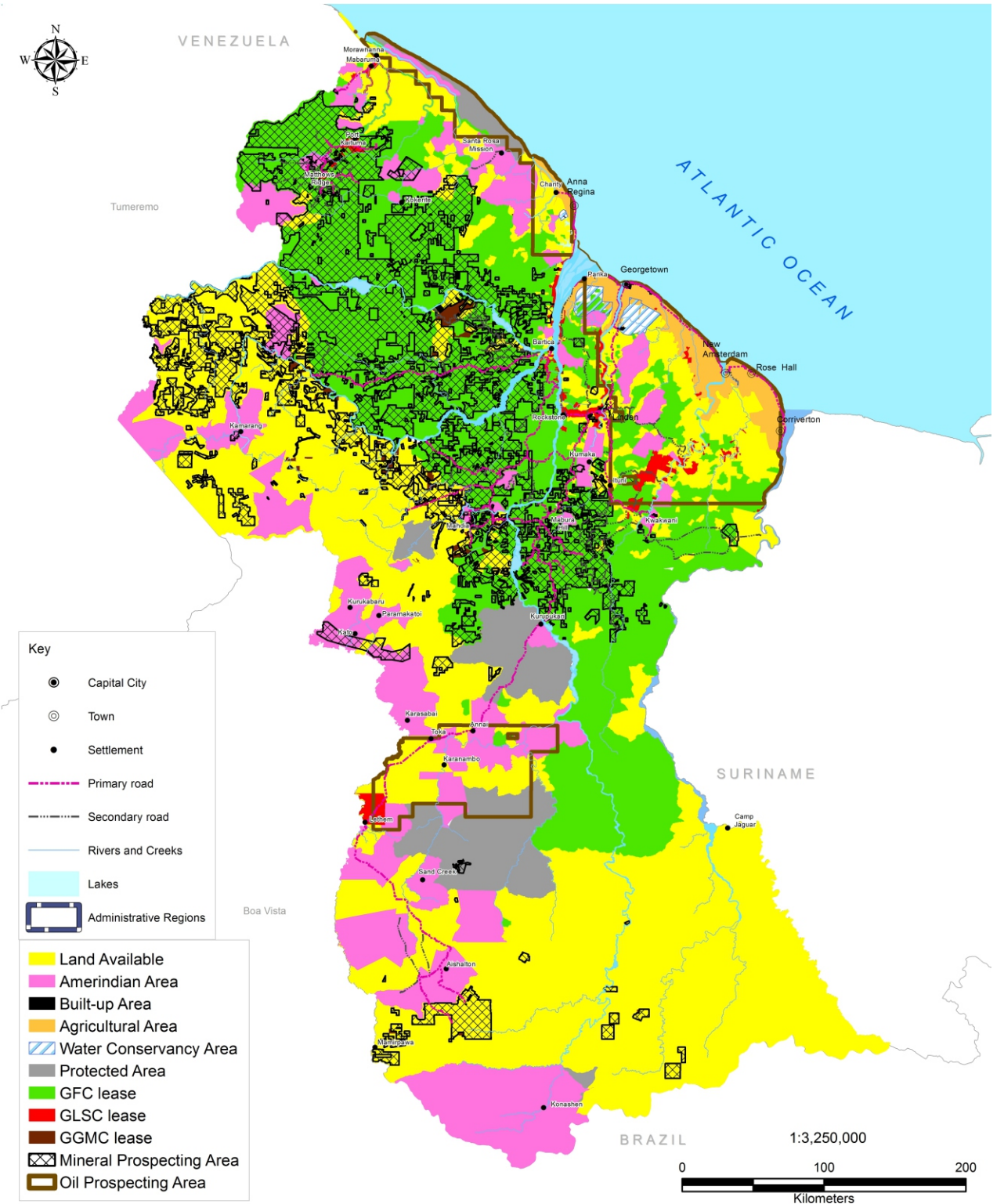
### Guyana's resources – a World of Opportunity

Guyana is blessed with a wealth of resources. These include:

- Land – the base of all of our activities. With our small population, we have one of the highest land resources per person in the world
- Climate – a moist tropical climate, but with climatic variation across the country. With good soils, Guyana could produce many different crops, for home consumption and export
- Mighty rivers – Guyana, the land of many waters (rivers) – providing water, energy and transport
- Forests – trees for timber, construction, processing (e.g. plywood), firewood, and fruits and other food stuffs
- Minerals – gold, bauxite, manganese, and possibly oil and rare earths
- Energy – cascading rivers for hydro-power production, sunshine for solar power, vegetable oils, and biomass
- Biodiversity – with our intact forests, Guyana is a world renowned store of biodiversity – the trees, flowers, and animals that are found on our land
- Bio-medical research – from our biodiversity, opportunities exist for new sources of medicines
- Tourism – again, with our forests and our savannas, opportunities exist for tourism, especially eco-tourism, such as bird watching
- People – Guyana has a reasonably well educated population.
- English speaking population, which supports ready contact with our major markets, in the Caribbean, United States, and Canada
- Location – while we tend to look outwards, to the Caribbean and North America, we are also part of South America and well located for exporting to Venezuela and Brazil



### Available Land





- Guyana has a wide variety of plants and animals. With its intact forests, it is one of the world's major reserves of biodiversity.
- Guyana has very low development of infrastructure away from the Coastal Plain. Development of the interior will require investment in infrastructure.
- Climate change threatens Guyana mainly from sea surges, rather than from sea level rise. Surges could flood most of the Coastal Plain, destroying crops and infrastructure.

## Where can I get land?

*'So we have learned a lot about Guyana but I need land to invest in.'*

About 40% of the country is potentially open to investors and those seeking land for various purposes. However, availability varies a lot across the country.

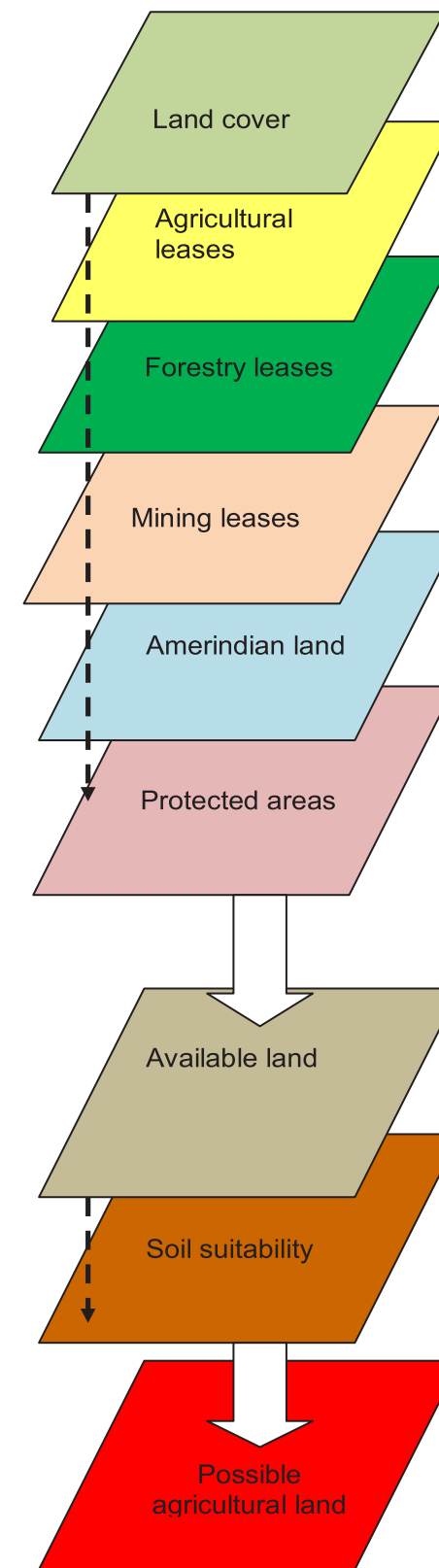
**About 40% of Guyana's land is available for investors**

- On the Coastal Plain, there is very little available land. However, there is land which is not being beneficially used and could be made available for more productive uses.
- Inland from the Coastal Plain, there are considerable areas of available land, especially in Regions 1, 5 and 6. There is also some available land in Region 10.
- In the interior, there are large areas of available land in the Pakaraimas, Northern Rupununi, and the deep south of the country.

Details are shown on the Map of Available Land.

However, availability is also tied to the use you want to make of the land. Only about 6 to 8% of available land is good for agriculture, primarily in Regions 1, 6, 7 and 10. Land for agriculture and activities such as tourism can be leased from the Guyana Lands and Surveys Commission; for forestry from Guyana Forestry Commission; and for mining from Guyana Geology and Mines Commission.

Land is available. But remember that you lease it from the People of Guyana. You have a responsibility to use it properly, to protect the long-term security and potential of the land.



## How was the information analysed for the National Land Use Plan?

### Obtaining the information

The National Land Use Plan mainly used existing information. This information was held in different agencies, such as the Guyana Forestry Commission (GFC) and Guyana Geology and Mines Commission (GGMC). The study team visited all these different agencies and obtained all the available information – as maps, as statistical data, in reports, digital data from computers, and so forth.

### Managing the information

Much of the information was what we call **spatial information** – that is, information related to location and area. For example, GFC was able to provide a map of forests in Guyana.

All this spatial information was stored in a Geographic Information System or GIS. This is essentially a computerised mapping system. Each information theme (forests, soils, minerals, etc.) is stored in a different layer. The information can then be printed out as a map, or combined with other themes for more advanced analysis.

### Analysing the information

Think of the different information themes as different coloured plates in your kitchen cupboard. You can take out as many or as few of those plates and stack them up; as they are different colours, you can create different patterns.

This is essentially what we do in a GIS. Within the computer, we stack up different themes or layers to look at the relationship between them. Do they coincide or overlap (e.g. forests, mining and agriculture falling on the same land)? Are they near to each other (e.g. are potential mines near to existing roads)? Who is using the land and are there potential conflicts (e.g. the overlap of forestry, mining and agricultural leases)?

So what are you interested in? Suppose that you want to know where you can find available agricultural land. Firstly we overlay all the existing leases (agriculture, forestry, mining), Amerindian areas, and protected areas; this will give us available land. Now we overlay this with soil suitability for agriculture, to get available and suitable agricultural land.



### Working together for a better tomorrow

The National Land Use Plan was prepared from existing information. Most of that information was available in different ministries and agencies, and had to be brought together. Often the information was stored in ways that required it to be converted to a common format, so that the different information could be used together. This involved much time and effort. Some of the key agencies are shown in the diagram below.



If we are to keep the National Land Use Plan up to date, to serve the development interests of Guyana, then we need to ensure better coordination and cooperation between all these different agencies. There needs to be free exchange of information between agencies. And there needs to be one agency where all this information is collected together and made available to investors – a ‘one stop shop’. As all this information is required to keep the National Land Use Plan (and Regional Land Use Plans) updated, then the logical agency is the Guyana Lands and Surveys Commission.

This is not to suggest that the GL&SC will own all that information, merely that it will take responsibility to collect and integrate all the information, to use it for planning national needs, and assist investors with information that they need.

Continued from page 2



### What does the Plan tell us?

The National Land Use Plan is a large document – over 200 pages long, with a separate atlas of maps. There is a wealth of information about Guyana and possibilities for the future. Some key findings are:

- **Opportunities and constraints**, by sector (agriculture, forestry, mining, protected areas, industry, energy, infrastructure, etc.)
  - **Development options** – what can be done where, and issues related to realising the potentials
  - **Next steps** – what else needs to be done, and an implementation and monitoring framework for implementing the NLUP
- 98% of Guyana is still under natural vegetation. The impact of humans is minimal away from the coast.
  - 88% of the population lives on the coastal plain. Poverty is highest in interior areas.
  - Forests cover over 88% of Guyana; deforestation is only 0.06% per year, mostly due to mining.
  - 37- 42% of Guyana has no land use on it and is ‘available’. Of available land, 88% is forested. However, there is land pressure on the coastal plain, but this could be relieved by better enforcement of land lease conditions.
  - Key current uses are forestry leases (33% of Guyana), mineral prospecting leases (19%), titled Amerindian areas (15%) protected areas (8%), GL&SC leases (2.5%), and mining leases (2%). Mining and forestry leases frequently overlap, causing conflicts.
  - There are about 3.3 million hectares of good (Class I & II) agricultural land. Beyond the coastal plain, this is concentrated in Regions 1, 6, 7 and 10. About 79% is currently forested.
  - Mining and agriculture are much more profitable *per hectare* than forestry and other uses.
  - Hydropower potential is high, with 67 potential sites identified. Guyana’s current energy demand (about 160 MW) is less than 5% of potential hydropower production (4 to 7 GW), offering opportunities for export.

*Guyana has huge potential. How should we realize this? Mining before forestry? Sustainability first? Develop off the coastal plain?*

