Spectrum Management Master Plan for Grenada and St.Vincent&the Grenadines

(Policies, Practices and Requirements)

ITU-BDT

Outline

1. ICT Regulation and Spectrum Management Institutional Structure
2. ICT and SM Legislation
3. Spectrum Pricing and Financial Aspects
4. Strategy and Operational Aspects

Country's Profile

Approximately 108,132 (est. 2008) people inhabit Grenada, including the 6,521 inhabitants of Carriacou and Petite Martinique.

Is part of the The Organisation of Eastern Caribbean States (OECS) and Eastern Caribbean Telecommunications Authority (ECTEL)

In recent years ICT has demonstrated sustainable growth:

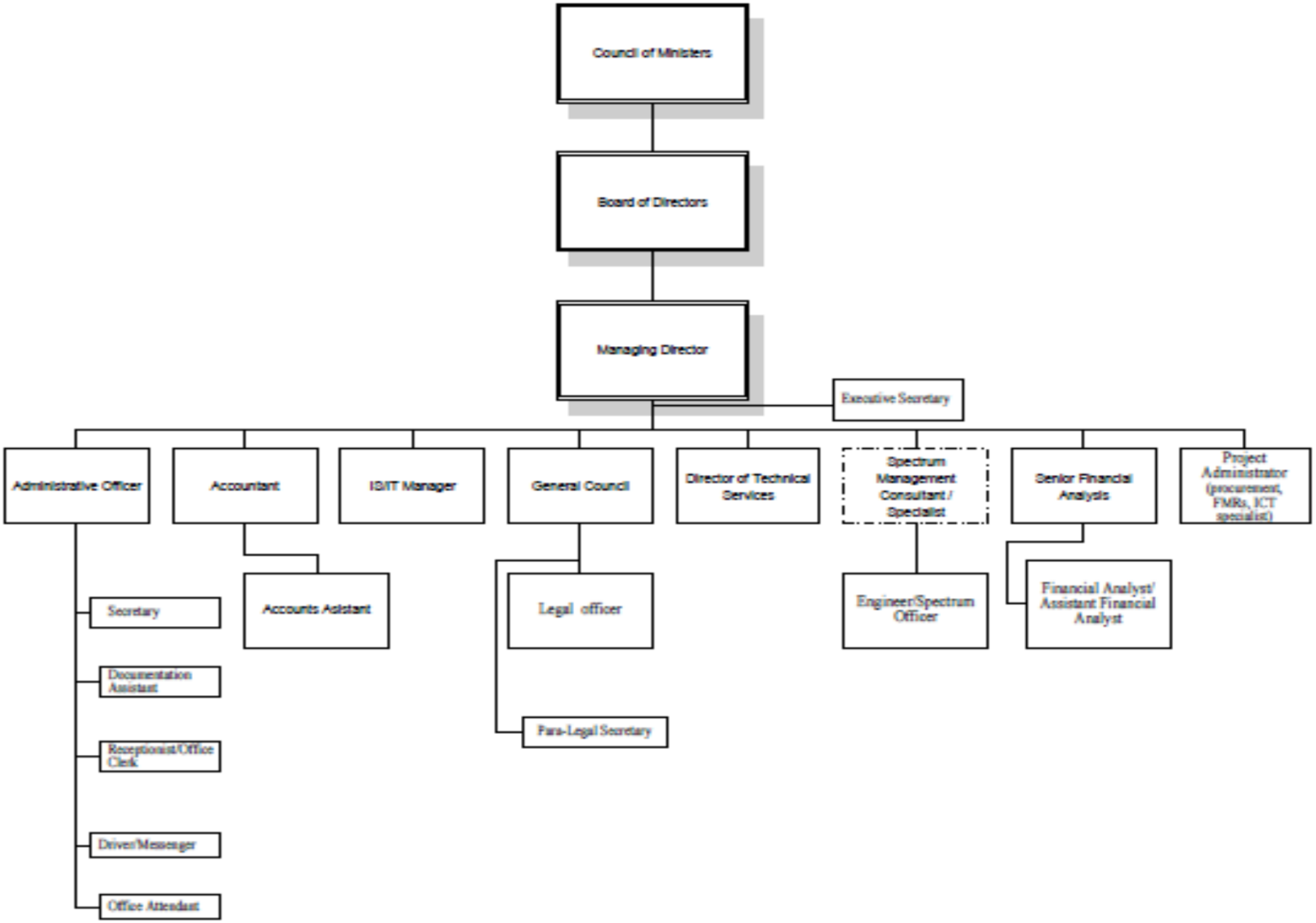
- **ICT is the thriving sector with notable M&A cases - Columbus Communications was acquired by Cable & Wireless.**
- **Cable & Wireless and Digicel are the main mobile operators. Both companies requested additional blocks of spectrum in 700 MHz.**

1. ICT Regulation and Spectrum Management Institutional Structure

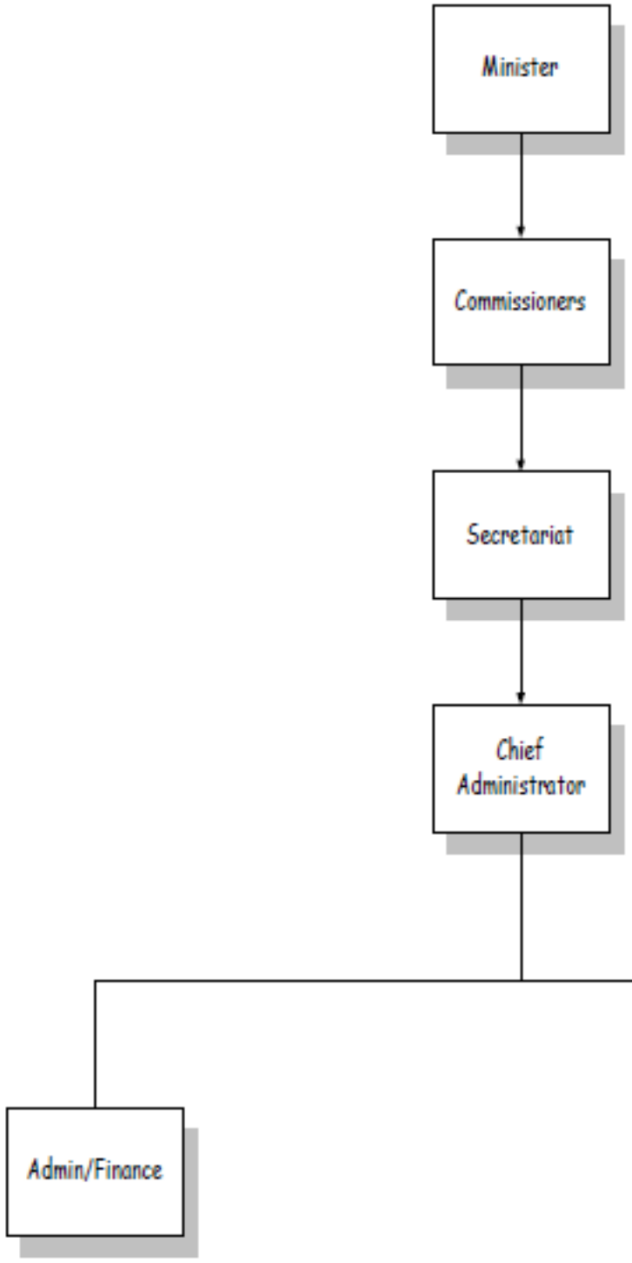
About ECTEL

- ECTEL was established by Treaty on 04 May 2000 and provides support for the management of the telecommunications affairs of five states, namely Commonwealth of Dominica, Grenada, St Kitts and Nevis, St Lucia, and St Vincent and the Grenadines.
- The management of the scarce resource is carried out under a multi-island spectrum management system. One of the basic principles applied is that of harmonizing the processes to ensure equitable distribution of the spectrum.

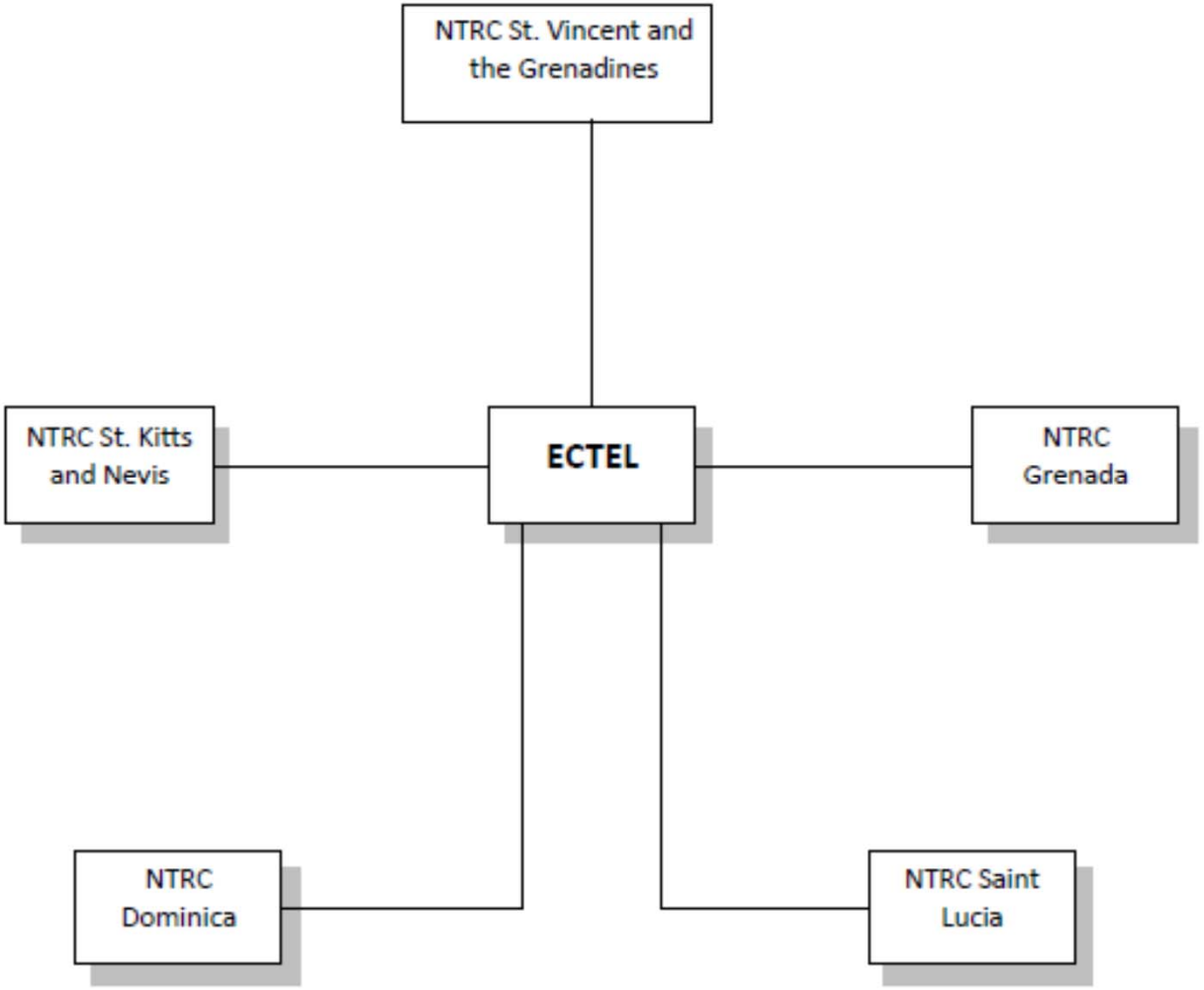
ECTEL Structure



NTRC Structures



Relation between NTRC and ECTEL



Current Institutional Structure

- **Telecom regulation is mainly under the Ministry of Communications, Works, Physical Development, Public Utilities, ICT & Community Development , who is the responsable for the ICT policy in the country and is part of the ECTEL's board.**

- **The** National Telecommunications Regulatory Commission (NTRC) **is the telecommunications national regulator. W**as established pursuant to the Eastern Caribbean Telecommunications Authority (ECTEL) Treaty (Act 30 of 2000) and the Telecommunications Act 31 of 2000 to regulate the newly liberalized Telecommunications market in Grenada in collaboration with the Eastern Caribbean Telecommunications Authority.

Institutional Drawbacks and Actions Recommended

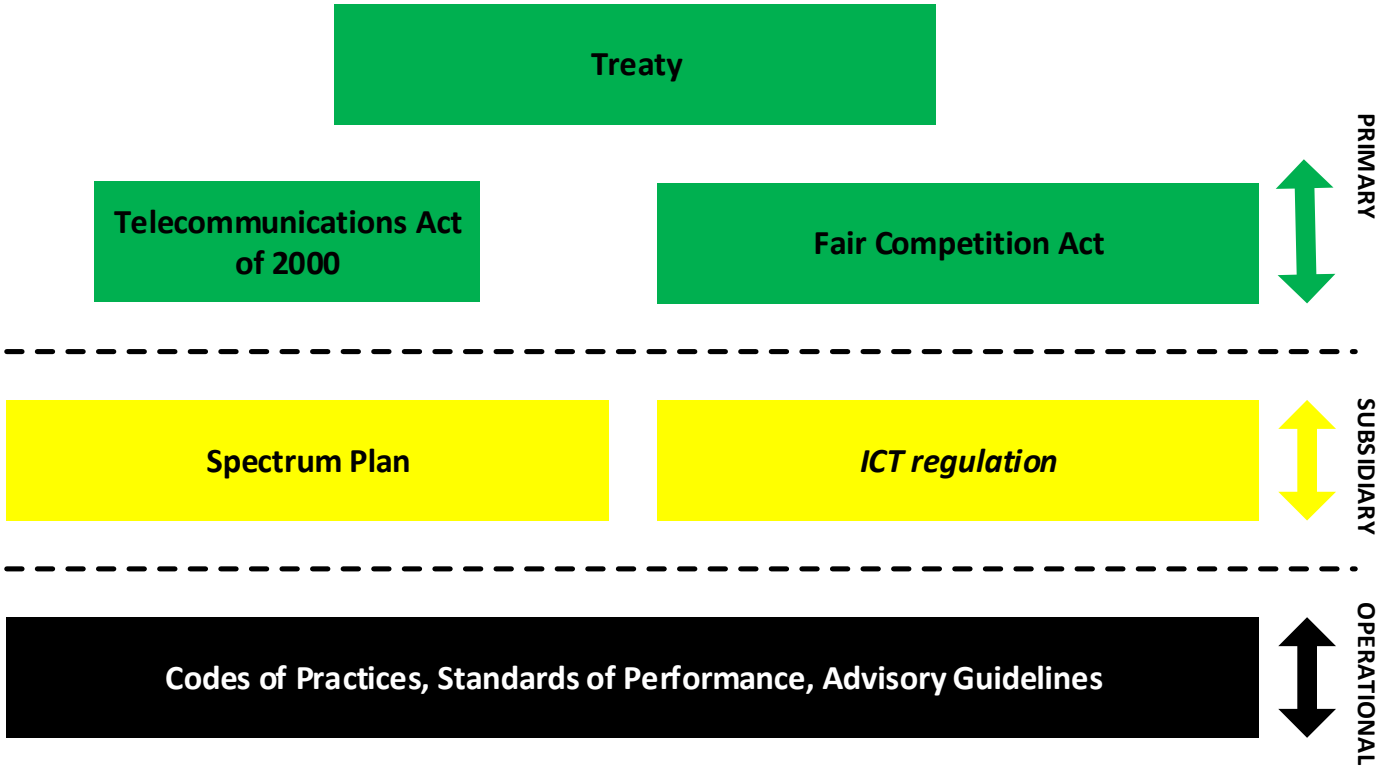
Technology Specific Regulation	**Drawbacks and Risks**	**Actions Recommended**
Different Radio Services are subjects to technology specific regulation.	The ECTEL's spectrum plan is outdated and requires some immediate upgrades, especially related with PPDR and IMT harmonization.	The NTRC should apply innovative regulatory practices corresponding to converged environment, like spectrum auctions, coordinated with ECTEL.
Independency of Regulator	**Drawbacks and Risks**	**Actions Recommended**
The SMA coordinates with ECTEL some decision-making process, financial aspects, licencing and capacity building. However, the responsibility belongs to NTRC, as well as licensing final decision.	Lack of Harmonization in IMT bands and spectrum monitoring capabilities using adequate procedures and some automated tools.	The NTRC need better training to support the decisions and perform monitoring tasks as well as QoS surveillance.

2. ICT and SM Legislation

Existing ICT Legislative Framework

ICT regulation constitutes a significant part of national legal framework of Grenada and ECTEL countries. The provisions related to ICT regulation, including SM are determined in legislative instruments belonging to different levels of legal hierarchy, including the treaty

STRUCTURE

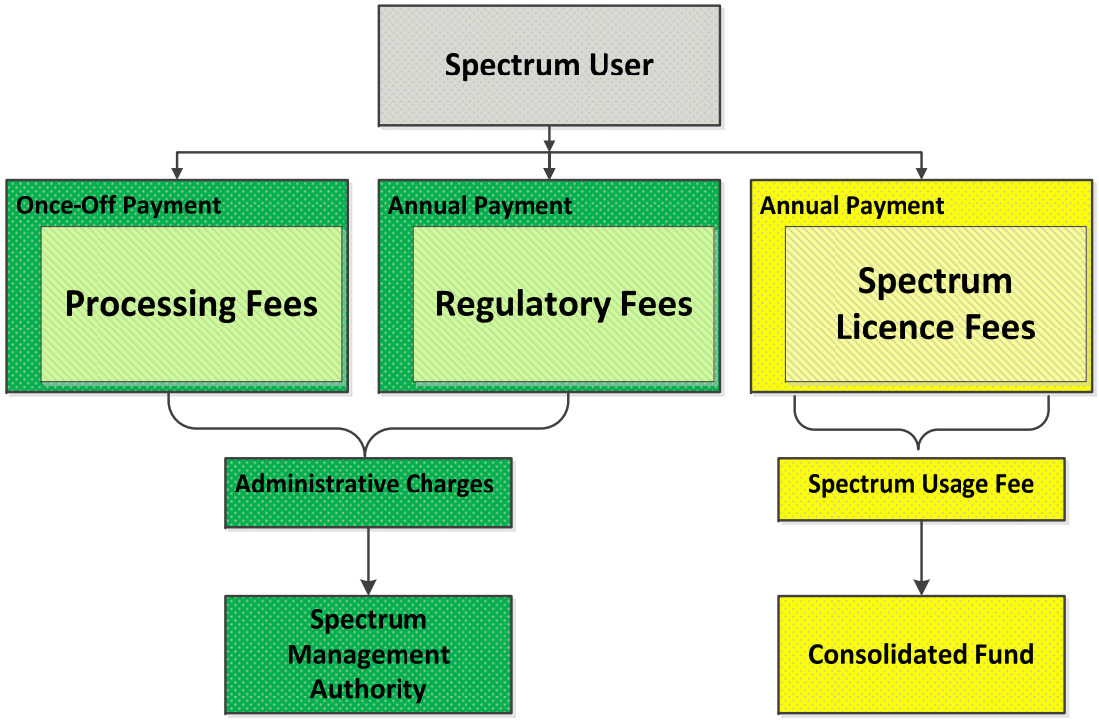


Legislative Drawbacks and Actions Recommended

Primary Legislation	**Drawbacks and Risks**	**Actions Recommended**
Primary legislation related to technical regulation and spectrum management for broadcasters and telecommunications is separate	Separate legal acts assume different regulatory environment for telecommunications and broadcasting. SM aspects are blurred between two jurisdictions.	All technical/spectrum management provisions of the BRRA should be disentangled and transferred to a new standalone ICT Act.
Secondary Legislation	**Drawbacks and Risks**	**Actions Recommended**
Secondary legislation is outdated, as well as the Spectrum Plan.	Part of the NTRC's operation need some update and revision of procedures.	A training program is proposed, regarding Spectrum Monitoring, harmonization and QoS.

3. Spectrum Pricing and Financial Aspects

Existing Spectrum Pricing Scheme



The model applied by the SMA today is mostly based on cost recovery but includes payments related to market value of spectrum bands in the form of spectrum licence fees.

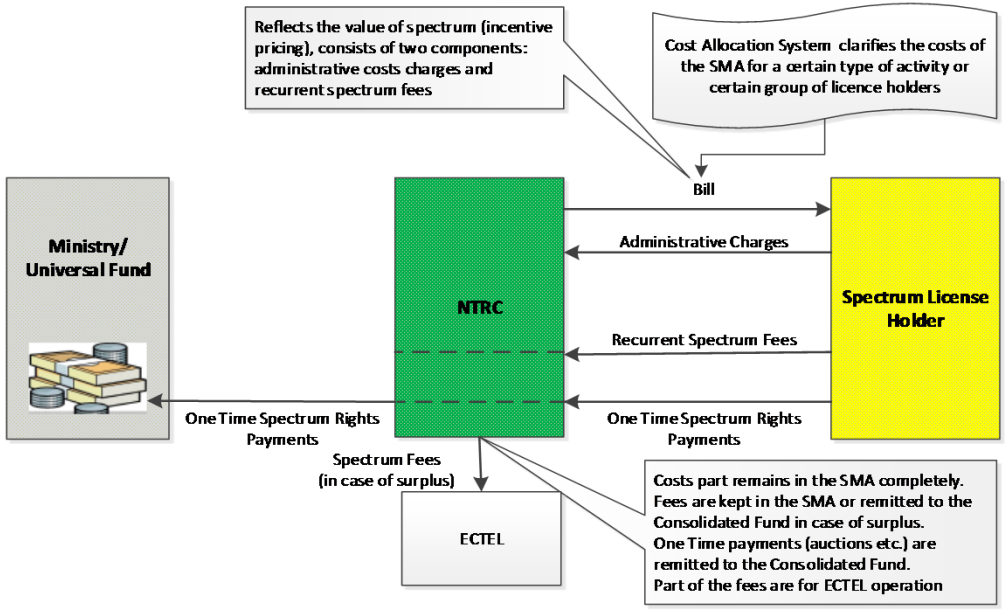
There are two major drawbacks with the current scheme:

1. The outdated methodology of cost recovery. Difficulties with financing capital expenditures of the SMA.
2. Spectrum fees are insufficiently incentive.

Financial Drawbacks and Actions Recommended

Funding	Financial scheme covering the SMA's capital expenditures is not created	**Drawbacks and Risks**	Development programs of the SMA requiring capital expenditures can't be adequately financed resulting in shortage of equipment and facilities.
Actions Recommended	Financial mechanisms to ensure adequate reimbursement of CAPEX should be introduced as the matter of urgency. It can be based on retaining of the portion of spectrum licencing fees within the budget of the SMA.		
Funding	The SMA's spectrum pricing scheme is aimed on covering operational costs. The amount collected is insufficient to cover the entire list of the SMA's operational expenditures	**Drawbacks and Risks**	The SMA is limited in financing its operational expenditures incl. human capacity program (training, staff motivation, international activities, studies, researches etc.)
Actions Recommended	Current structure of regulatory/processing charges should be modified to provide sufficient reimbursement of the entire list of operational expenditures		
Spectrum Pricing	Current methodology of regulatory fees is based on outdated legal acts	**Drawbacks and Risks**	Regulatory fees as levied under current primary acts stems from the outdated classification of radio services and do not reflect the market value of spectrum bands utilized
Actions Recommended	The methodology of regulatory fees should be revised based on the up-to-date classification of radio services and applications. Regulatory fees levied should reflect the market value of the utilized bands.		
Spectrum Pricing	Current spectrum pricing methodology is insufficiently incentive.	**Drawbacks and Risks**	The SMA does not apply sufficient financial leverage to influence spectrum holders to use their resources in the most efficient manner.
Actions Recommended	AIP is recommended for the bands with proven market demand providing motivation to ensure the highest possible efficiency of spectrum usage.		

Recommended Target Financial Scheme



The bill contains administrative charges (ACP) and fees part (AIP) of spectrum payments.

The ACP reflects the costs of administering spectrum allocated/assigned.

The AIP is based on the value of spectrum for users and levied on the annual basis.

Administrative charges and annual spectrum usage fees are proposed to remain with the NTRC to cover the Authority's direct and indirect costs.

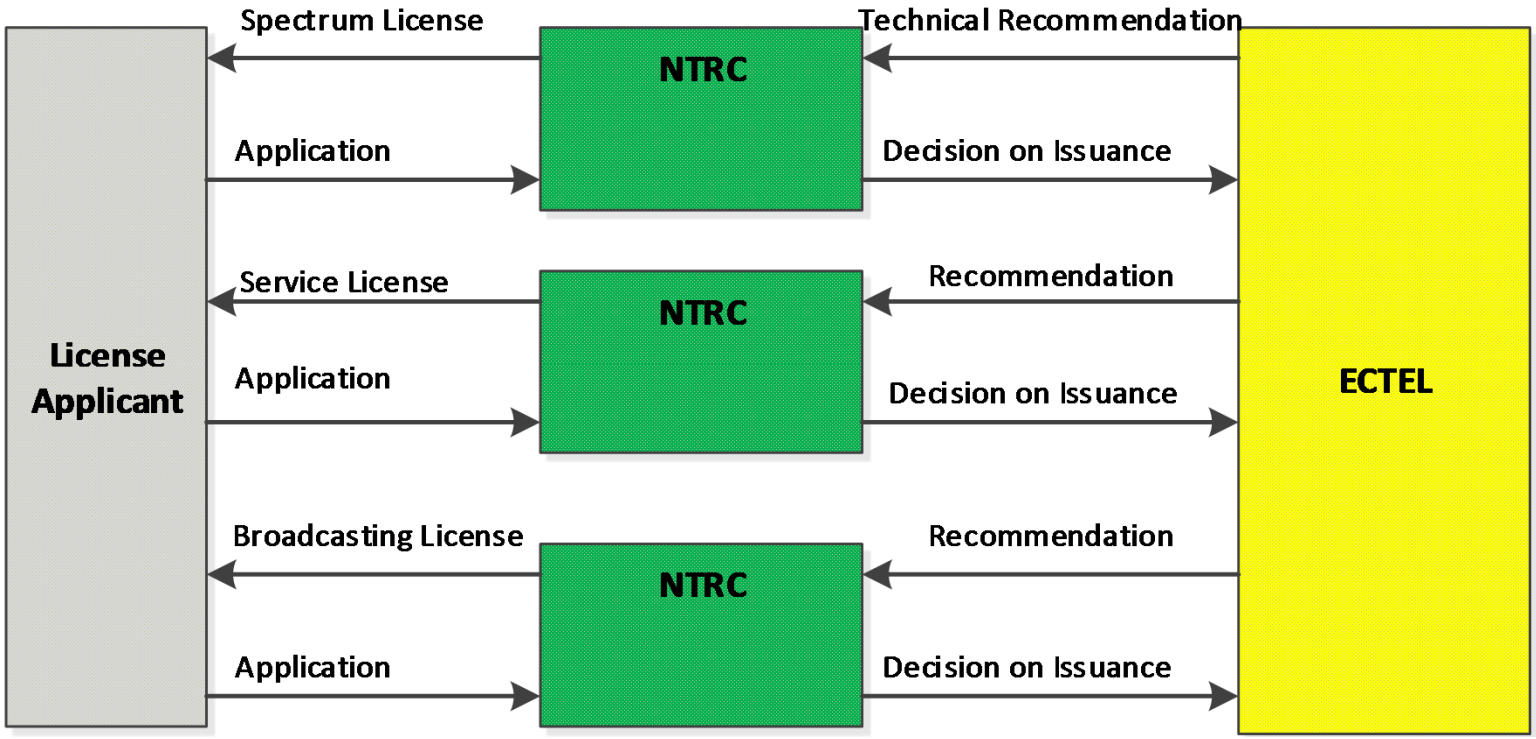
ACP is kept by ECTEL and shared with NTRC. Annual spectrum usage fees also remain with the NTRC except the surplus that should be remitted to the Consolidated Fund.

4. Strategy and Operational Aspects

Strategy Drawbacks and Actions Recommended

SM Strategy	The SMA does not provide publically available document on the strategy of spectrum usage.	**Drawbacks and Risks**	The telecom market is not provided with the clear guidance on the SMA's strategic vision of spectrum utilization in the country. It does not secure confidence of future investors.
Actions Recommended	SM strategy document should be developed. It should be periodically revised according to the rapid radio technology innovations presumably based on the results of WRCs.		
Spectrum utilization plan	The SMA does not provide publically available spectrum utilization plan.	**Drawbacks and Risks**	Lack of publically available information on the status and principles of spectrum bands utilization.
Actions Recommended	Spectrum utilization plan should be developed. It should provide market with the data on current types of spectrum applications and estimated plans on the usage of thereof.		
Spectrum Reallocation	Spectrum reallocation/refarming framework is not established	**Drawbacks and Risks**	As long as demand for new radio technologies is increasing, some spectrum bands are becoming congested.
Actions Recommended	The SMA should envisage the challenges arising from reallocation. Regulatory framework should be established to facilitate future process of spectrum reallocation.		
Spectrum Trading	Spectrum trading aspects are not covered by the existing legislation as well as not included in regulatory practice of the regulators.	**Drawbacks and Risks**	Rapid technology turnover assumes secondary market-based mechanisms to facilitate implementation of the up-to-date technologies in the congested spectrum.
Actions Recommended	The SMA should envisage the need for introduction of further market-based methods of spectrum regulation including spectrum trading.		

Current Licences Application Process



Licencing procedure needs some revision regarding technical aspects of spectrum engineering, but is well defined and updated.

Operational Drawbacks and Actions Recommended

Spectrum Licencing	**Drawbacks and Risks**	**Actions Recommended**
Spectrum licencing and pricing requires some update, like Auction processes for some bands.	The outdated list of radio applications complicates introduction of up-to-date licencing (generalized authorization) and pricing procedures (AIP).	The NTRC should modify the list of radio applications currently used for spectrum licencing and pricing purposes.
Radiomonitoring	**Drawbacks and Risks**	**Actions Recommended**
Radio monitoring equipment used by the NTRC is largely aimed on the most actively utilized spectrum bands below 6 GHz.	Due to congestion in traditional spectrum bands the higher frequency ranges would become of significant demand in the short-term. The NTRC has the risk to overlook this problem.	The NTRC and ECTEL should modify the existing radio monitoring equipment to cover the higher spectrum bands.

Amateur Radio

MOD

47-75.2 MHz

Allocation to services		
Region 1	**Region 2**	**Region 3**
...	**50-54** AMATEUR 5.162A 5.167 5.167A 5.168 5.170	

Radio Amateur operators have also a big concern with the 6-meter band (50 to 54 MHz), which is a portion of the very high frequency (VHF) radio spectrum allocated to amateur radio use (Grenada Report).

Maritime Systems

- RESOLUTION 359 (REV.WRC-15)
  - **Consideration of regulatory provisions for updating and modernization of the Global Maritime Distress and Safety System.**
- RESOLUTION 360 (REV.WRC-15)
  - **Consideration of regulatory provisions and spectrum allocations to the maritime mobile-satellite service to enable the satellite component of the VHF Data Exchange System and enhanced maritime radiocommunication**

IMT

- The region requires some harmonization for IMT systems.
- Spectrum occupancy for IMT is not really known by the regulator. (spectrum hoarding is possible)
- In Grenada the third operator do not have enough spectrum to fairly compete with dominant operators.

International Telecommunication Union

Thank you!