

Drawback in radio content development highlighted

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As someone who had been actively involved in broadcasting in Sri Lanka, I make a deliberate attempt to keep abreast of developments in the radio and television industry during my frequent visits to the country.

Radio broadcasting in Sri Lanka has come a long way. The 'content' played out on a daily basis is becoming increasingly creative, entertaining and addictive. The popular 'drive' segments dished out by some stations in the mornings and afternoons are second to none in the world. But some would question whether the boundaries of the program content could be pushed further, within the confines of socially acceptable norms and in a self-regulatory broadcasting environment.

Nevertheless, prevalent FM radio reception issues of some radio services do not do justice to the creative radio talent emerging in Sri Lanka. In my view, issues related to reception may be primarily associated with a couple of factors; planning issues related to radio frequency spectrum and issues associated with implementation of transmission facilities.

Yet, as perceived problems can be fixed with the co-operation from the relevant authorities and the appropriate radio stations, there is light at the end of the tunnel!

There are quite a few FM Radio reception issues that need to be addressed to improve greater consumer engagement, interaction and enjoyment. I strongly believe, they are all actionable and not beyond the means of anyone. Let me first list out what I have noted. Here I am deliberately trying to wean away from the obvious technical terms, for ease of common understanding:-

* Not being able to tune to the service/station of your choice due to close frequency proximity of services, in the radio dial, particularly in the Colombo region;

Varied reception conditions for portable, mobile and domestic reception;

Inadequate attention paid to different receiver design architecture at the time of planning, which may be contributing to degraded quality of reception in some receivers;

Same content repeated on the receiver dial as a second/third channel due to spurious emissions from transmission facilities and the absence of a compliance regime for transmission facilities;

* Non-co-sited (scattered) transmission sites and different radiated power levels, possibly contributing to mutual interference between services in the same geographical area.

One of the main reasons for not being able to tune into a wanted service on an average analogue domestic receiver is fundamentally a broadcast spectrum planning issue. There are a set of international guidelines that countries generally follow when planning radio and television

broadcasting services.

These internationally recognized parameters have been developed on the basis of a notional receiver which specifies 'selectivity' (ability to receive a radio signal without harmful interference) and 'sensitivity' (threshold signal level that the receiver requires to faithfully reproduce the original signal) criteria to deliver an audio quality of a defined grade at reception, irrespective of the radio noise environment where the listener is located.

I do not intend to dwell into greater technical details, but broadly speaking some sort of re-jigging of the spectrum currently occupied by the services is required to alleviate the issue.

For example, Colombo region, where spectrum congestion currently prevails, requires special address as the radio broadcasting services are not received at the threshold audio quality by many receivers within the intended coverage area. This single-handedly is a major drawback which in turn inhibits further development of innovative radio content.

Sri Lanka appears to have conducted broadcast spectrum planning on the basis of interference - limited planning without due consideration to the quality of reception in the intended coverage area.

Radio broadcast services are point-to-area services. Therefore, a statistically reliable received radio broadcast signal from the transmission site should be made available to the intended coverage area to deliver a defined quality of service, which is in par with the internationally recognized parameters.

Even if the international planning principles have been deployed in many cases, the inadequate implementation of transmission facilities could also give rise to domestic, portable and mobile reception issues.

The FM receiver has a unique characteristic in 'FM capture'. It is ability of a FM radio receiver to discern the stronger of two signals at or near the same frequency.

This captured signal is then received, whether it be the consumer required service or an unwanted broadcast.

Some receivers, mainly the expensive ones, have greater discernibility, whereas low-cost domestic or portable receivers require the signals to have larger differences to be able to discern. This inherent receiver characteristic variance plays a major role in the reception of FM broadcasting and needs to be considered in determining the separation between frequency/power of the station in the same geographical area.

Additionally, when planning and implementing FM broadcasting services, the authorities and broadcast service operators should collaboratively endeavour to deliver a defined grade of service to the majority of receivers in the country. As a rule of thumb, the figure often bandied is 75 per cent of the best receivers available in a country.

Another annoying experience is the fact that along the FM radio band, some stations appear to be occupying many channels although the radio pro gramme content is the same. Such spurious emissions should be examined on a regular basis to ensure that they do not further exacerbate the problem of mutual interference between services.

Suffice to mention here that there are simple techniques available to determine the cause of spurious emissions or even the more sophisticated interference issues.

The location of a transmission site anywhere in the world is a technical as well as a social, environmental and emotional issue. Keeping my focus on the technical aspects, I will discuss here the non-costing of services with different power levels.

The usage of a single broadband transmit antenna for the co-siting of all FM broadcasting services within a common geographical area should be encouraged. The provision of services from one common transmission site would alleviate limitation of coverage, minimize signal differences between services on the ground and possibly lead to alleviating mutual interference between services.

In discussing the issues related to reception, I have made a conscious effort to minimize the use of technical jargon to enable a wider audience to appreciate the issues raised. In the event more detailed discussions are require, I am willing and able to assist the authorities and broadcasters alike. I want all Sri Lankans to enjoy the diversified content currently played out at an acceptable quality of reception.

During my breaks in Sri Lanka I find myself becoming more and more addicted to the increasingly captivating radio content. Having continued to broaden my experience in this sphere since leaving the shores of Sri Lanka, I cannot help but express my desire to contribute in whatever way possible to minimize or eliminate the noticeable and avoidable glitches.