NEPAL

Nepali Folk Music
Recording and
Documentation Centre

Establishment of FM Community Radio

by   Carlos A. Arnaldo
         Kjell Linder

United Nations Educational,
Scientific and
Cultural Organization

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Report prepared for the Government of the
Kingdom of Nepal by the United Nations
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United Nations Educational,
Scientific and Cultural
Organization

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Executive Summary

From 22 November to 7 December 1993, the authors of this report visited Kathmandu. The terms of reference as approved by the Secretary-General of the Nepal National Commission for UNESCO, were:

1) to discuss the multi-dimensional use of sound production equipment from the project 352-NEP-01 for training in community radio production;

2) assist in the elaboration of a project document for community radio production training susceptible of financing by non-governmental organizations (NGOs), foundations, specialized agencies or other donor sources and which can gain cooperation from local institutions and organizations in various fields of environment, education and health;

3) discuss the possible organizational structures of community radio, based on experiences in similar countries and on similar projects;

4) provide introductory training in organization, programme concepts and production.

Discussions were held with Nepal Television concerning the equipment originally assigned to the IPDC project, Folk Music Recording and Documentation, for the transfer of unused sound production equipment to Nepal Forum of Environmental Journalists (NEFEJ) for training in community radio.

Comprehensive discussions were held with the NGO partners proposing the experimental FM radio station, namely NEFEJ, the Nepal Press Institute and Himal magazine. Close coordination was assured with the National Commission, particularly for the participation of relevant educational offices, notably the National Council for Literacy and the Distance Education Unit of the Ministry of Education and Culture. Towards the end of the mission a seven-day training course was held.

This report provides the details of the above discussions and presents a practical record of how to proceed in the preparation and establishment of new FM stations in Nepal.

352-NEP-01: Establishment of FM Community Radio

Technical Report

I Introduction

1. In order to appreciate the thrust of events in Nepal since the 1980s and its changed position vis-à-vis development assistance in the field of communication, a brief review of UNESCO-Nepal co-operation may be instructive. While today a new Constitution guarantees basic freedoms and private sector initiative, the previous administration operated mainly on traditional lines and thereby sought to preserve and strengthen governmental institutions. There was little encouragement at that time to cultivate alternate sources of information. Consequently, it is not surprising that two earlier UNESCO projects in 1984 for experimental community radio and the training of journalists did not attain official support.

2. In 1984, UNESCO in discussion with the Ministry of Communication had proposed a project for an experimental FM radio station in Surkhet to be financed by Germany. Although financing had been approved, the national authorities at that time were not in a position to approve this project. Radio Nepal was undergoing its own administrative and organizational changes and was then unprepared to assimilate or accept another station in a remote district, run by the private sector and with no apparent control from the national broadcaster. Indeed the whole concept of community radio, apart from the national radio network, was considered at that time as vague and uncertain, compared to what Radio Nepal could accomplish on its own with the new production and transmission facilities provided under Japanese co-operation, for both Kathmandu and Pokhara.

3. By the end of the 1985 UNESCO preparatory mission, the community radio project had little hope for official support. In the same vein, another project, proposed at about the same time, to launch training programmes for journalists and broadcasters at the Nepal Press Institute, to be financed by Danida, was also deferred.

4.   The national authorities turned instead to proposals to strengthen its own media organizations, as contained in their request to UNESCO to field a mission in 1989 to strengthen the Ministry of Communication and its principal media organs, notably Gurkhapatra Corporation, and to provide training for Government media employees. Two projects were proposed primarily for financing under the United Nations Development Programme (UNDP), one to strengthen the facilities of the Ministry of Communication; the other to provide professional media training through the Nepal Press Institute. Neither project was able to attract funding from UNDP or other sources.

5.   Despite this turn of events, the International Programme for the Development of Communication (IPDC) was able to support two projects. The first assisted the Gurkhapatra Corporation which prints the two national daily newspapers, *Gurkhapatra* (in Nepali) and *Rising Nepal* (in English). Under the project (352-NEP-11), a training mission was sent to Nepal in 1989 and study tours were organized in 1990 for selected print technicians. Although the project included an equipment component, no equipment was requested or ordered.

6.   A second IPDC project sought to rescue the Ratna Music Corporation from pending dissolution. A consultant mission was fielded in 1989 to discuss with the national authorities the establishment of a music documentation centre and a music recording facility for both field and studio recording.   The equipment, based on the list prepared by the consultant was purchased in 1990. But in 1991, the equipment consignment was transferred to Nepal Television, who absorbed the assets and rights of the Rajah Ratna Corporation upon its dissolution that year. In the same year, however, Nepal Television was undergoing its own changes, and building new studios for its operation. During this construction which took almost three years, the equipment remained in its original packing boxes and the project to record traditional music never came into being.

7.   During a visit to Nepal by the Chairman of the IPDC and a UNESCO Secretariat member in November 1992, discussions were held with Nepal Television who gave assurances that the studio would be completed by the end of March 1993 and that the equipment would be duly installed and used for its original purpose. The IPDC Chairman stressed that if that were not

the case by 30 March 1993, then the equipment should be recalled and assigned to another project.

8. Since 1990, the possibilities for development co-operation have been significantly broadened. People's movements, the expansion of the written press since 1985, and the gradual advances towards democratic processes through political parties and people's organizations led to and in large part inspired the drafting of the new Constitution of Nepal. The result was the enshrining in this national act of basic freedoms, in particular freedom of expression. The National Communication Policy Act which followed shortly thereafter opened the way for the flourishing of the private press and access of the private sector to radio and television, up to this point the monopoly of Government.

9. In November 1992, the Nepal Press Institute hosted and organized on behalf of UNESCO the first Workshop for the Heads of Asian Press Institutes since 1984. This meeting was highly instrumental in co-ordinating the work of national press institutes to provide a coherent regional thrust for training of journalists, development of provincial press, and assisting newly established press institutes. It was during this meeting that informal discussions were held with the Prime Minister and the Ministry of Communication on the possibility of UNESCO's assistance for the creation of an experimental FM community radio station supported by non-governmental organizations. Government reaction was generally favourable, and in keeping with the recent National Communication Policy Act.

10. It was an opportune moment to review the concepts of community radio and to wrap up past projects.

Terms of Reference

11. The terms of reference of this technical mission, as approved by the Secretary-General of the National Commission for UNESCO, were:

a) to discuss the multi-dimensional use of sound production equipment from the project 352-NEP-01 for training in community radio production;

b)   assist in the elaboration of a project document for community radio production training susceptible of financing by NGOs, foundations, specialized agencies or other donor sources and which can gain co-operation from local institutions and organizations in various fields of environment, education and health;

c)   discuss the possible organizational structures of community radio, based on experiences in similar countries and on similar projects;

d)   provide introductory training in organization, programme concepts and production.

Organization of the Mission

1.2   The mission took place in Kathmandu from 22 November to 7 December 1993 and was composed of Carlos A. Arnaldo, Chief of Free Flow of Information and Communication Research, Communication Division, UNESCO and Kjell Linder (Swedish) UNESCO consultant in radio production training.

13.   Discussions were held with Nepal Television concerning the equipment; and with the NGO partners proposing the experimental FM radio station, namely the Nepal Forum of Environmental Journalists, the Nepal Press Institute and *Himal* Magazine. Close co-ordination was assured with the National Commission, particularly for the participation of relevant educational offices, notably the National Council for Literacy and the Distance Education Unit of the Ministry of Education and Culture. Towards the end of the mission a seven-day training course was held.

Organization of the Technical Report

14.   In the context of preparing for FM Community Radio in the spirit of the Communication Act of May 1992, this report focuses on basic principles and practical measures for setting up community radio under private sector initiatives. These points have been discussed with the Secretary of the Ministry of Communication, Secretary-General of the Nepal National Commission for UNESCO and the NGO partners involved in one proposal, namely the Nepal Forum of Environmental Journalists and the Nepal Press Institute. These points are summarized, detailed and clarified in this report.

15. The report reviews recent legislation in Nepal concerning communication and private broadcasting in particular; suggests criteria for considering proposals for the establishment of new FM private sector stations; describes the basic requirements for setting up a new community radio station; and proposes training modules for preparing production and technical staff based on a preliminary training course conducted during the mission.

Independence and pluralism -- the two inseparable facets
of a free press. Photo CAA/UNESCO, Kathmandu 1993.

16.   The struggle of the Nepali people for liberty and democracy culminated in 1990 with a new Constitution guaranteeing freedom of conscience and expression.   At the same time it was recognized that information media had to be credible, effective and efficient and that private sector media would play a significant role, particularly through the introduction of advanced technologies. With these new developments in mind, two documents have been passed since then: the National Communication Policy paper and the National Broadcasting Act. For these, official, English translations were not available; consequently, any views or statements in this section should be considered in that light, with the flexibility of adjusting as soon as an official English translation is approved. The English translation will be important for a number of reasons, not the least of which is to harmonize the concepts and terminology used in these and any eventual legal texts.

The National Communication Policy 1992

17.   To put these basic ideals and principles of the Constitution into practice, His Majesty's Government formulated the National Communication Policy based on a report prepared by a special task force. The purpose of this paper was to ensure that the people would be informed about socio-economic development activities; would enhance their consciousness of equality, goodwill and harmony among the different ethnic communities; and participate in the development of the country. The policy paper would also be instrumental in promoting a culture of democracy, in safeguarding values and ideals fundamental to the constitutional monarchy, multi-party democracy and national unity; and in conserving and promoting national heritage.

18.   In anticipation of a separate Broadcasting Act, the Communication Policy prepares the way for private broadcasting in Paragraph 2.2.8: "Within the limit of the Broadcasting Act, registered private sector organizations will be permitted to set up FM (frequency modulated) broadcasting systems in defined areas and broadcast educational and recreational programmes." In

1992, this was a farsighted decision and the Communication Policy serves as the basic document for the introduction of private sector FM radio in Nepal.

The Broadcasting Act 1993

19.   The National Broadcasting Act was approved in June 1993, and goes beyond the former Radio Act of 1957 which created   the national broadcasting organization,   Radio Nepal. The new act, however, does not deal with only one national broadcasting system, but sets guidelines for communication in general, including radio, TV, satellite, cable and other means of electronic distribution. From hindsight, it might have been more appropriately entitled: National Act for Integrated Development-oriented Communication Systems. As this is now an historical fact, it may be suggested that the title of any further legislation in this broad field take account of the whole scope of communication and be therefore more appropriately labelled.

20.   While the National Communication Policy sets the stage for private sector broadcasting, the Broadcasting Act sets forth specific guidelines for obtaining the authority to broadcast and operational principles to ensure broadcasting according to norms set by the Government. Sections 4, 5 and 6 require that proposals of the private sector to initiate broadcasting activities be submitted to the duly delegated authority for review by a competent body; upon approval, an Authorization Paper is issued in the name of the person or institution applying.   In sections 7 and 8, strict sanctions are set for violations of this rule.

21.   Section 10 requires that a prescribed fee be paid together with the submission of the proposal for FM radio. In view of the limited financial resources of non-profit, non-governmental organizations that may wish to apply, it may be considered beneficial and practical either to waive this fee upon presentation of well substantiated reasons, or possibly differentiate the levels of fees for purely commercial operations that can afford a fee and recuperate it, and non-profit institutions who would not be engaging in radio for commercial benefits.

22.   Section 11 can perhaps serve as a model for broadcasting worldwide. It enumerates the kind of programming desired in the new FM stations of

Nepal. It urges the orientation of all broadcasting media to serve national interests; development (agriculture, education, industry, commerce, science and technology, health, family planning, forest and environment protection); unity and harmony of all sectors of society; respect for cultures and languages; the growth of moral and national awakening; social awareness; the nation's foreign policy, folklore and culture; important national and international events. This section also urges that programmes should not exert any detrimental influence on Nepal's relations with neighbouring and friendly countries. This section can serve as a basis for preparing suggested programme grids which reflect the topical priorities of the new stations and thereby provide evidence of adherence to principles enunciated in this section.

23.   With regard to news and information, section 16 stresses the functions, duties and rights of the broadcaster and in particular the verifiability and timeliness of news, which are very welcome points. This section further urges the broadcaster to assume a neutral political position in the editing and broadcasting of news. In effect, this section places a heavy responsibility on the broadcasters.

24.   The Act is particularly cautious about commercial advertisements. Section 14 bans all advertisement affecting public health, and in particularly smoking and drinking.   Section 15 forbids advertisements that are detrimental to political parties, that relate to pornography, that seek to overthrow the duly elected government through force or violence, that create fear and anarchy among the people, that detract from the non-aligned policy of Nepal, or that in any way create division, hatred, insult and degradation of any community, language religion, or culture. The same section, however, does set up rules for political broadcasts and conveying to the public the manifesto, programme or philosophy of political parties, in the spirit of objectivity and fairness, as further stipulated in section 16.

25.   It is noteworthy that the earlier Radio Act of 1957 requires those owning radio sets to pay an annual fee, whereas the Broadcasting Act of 1993 does not mention this fee at all. It should also be borne in mind that only a few countries in the world have developed the administrative sophistication to ensure timely and comprehensive collection of these taxes; in most other countries, these taxes are only partially collected.

Furthermore, in the light of growing national, regional and international media industries based on mainly commercial interests, public broadcasting supported solely by the state and these receiver taxes are currently facing the financial challenge to operate increasingly on a commercial basis. In this context, it is perhaps realistic that the Broadcasting Act of 1993 does not mention these fees; and in view of current trends in broadcasting finance, it may be worth considering eventually to repeal this section of the older law.

26. These two documents prepare the way for private sector radio. A task force will be set up to define operational regulations for submission of requests for an Authorization Paper. Some further considerations are developed in the next section which may be useful for the formulation of the eventual regulations.

III   Criteria for Establishing FM Radio
in the Kathmandu Valley

27. The Kathmandu Valley is practically a hollowed plateau some 1,400 to 2,000 metres above sea level. It is approximately 30 square kilometres in a NE/SW oblong shape. To the north and northeast, mountains climb rapidly to the height of Mount Everest at 8,848 metres above sea level. As such, the valley is a more or less homogeneous, compact area with few topographical barriers to FM communication. Everest Hotel, at the very centre of the valley would probably be the highest and most effective transmitting site, but a number of other potential sites can be identified on the low hillsides surrounding the valley.

28. Topographically, Kathmandu Valley is an ideal site for concentrated FM transmission, as few signals can reach beyond the valley without a network of relays. When planning for FM in this restricted geographical area, the basic guidelines can be very simple, oriented to economy and high efficiency. Neglect of these simple, basic guidelines, however, would mean unnecessary and wasteful use of energy, and needless, self-defeating competition. These guidelines should be considered as 'rules of thumb,'

rather than as rigid technical straight-jackets. They are nonetheless critical for the rational and beneficial development of the FM band in this Himalayan kingdom.

Frequency allocations

29.   At present the entire FM broadcast band from 88 to 108 megahertz (MHz) is unused; there are no stations broadcasting on this band. There are therefore 20 MHz of open broadcasting frequencies. Nonetheless, bearing in mind the painful lessons of industrialized countries who have over-used this band, it is strongly recommended that an absolute maximum of only ten frequencies be authorized within this band in any major city or coverage area of 30 square kilometres, thus providing for a full 2 MHz spacing between broadcast signals. With this wide band spacing, broadcasting stations can then use lower power, 500 watts and even less and still maintain effective, quality   signals within the valley of Kathmandu or similar coverage areas.

30.   The closer stations are to each other on the band, that is less than 1 Megahertz, the more they will interfere with each other. Eventually, stations received weakly will be forced to resort to higher power to maintain their signal strength and their audience. This is both wasteful and unnecessary. Furthermore, given the growth record of a capital city like Kathmandu, it is unlikely that economic development in the next ten years will advance to a degree that it would be able to sustain commercially more than five stations. It may be well at the start to envisage only two or three stations, and survey the economic situation before opening additional stations.

31.   It should also be noted, that in order to fulfil the criteria of adequate band spacing, those stations that are geographically sited close to each other, should be attributed frequencies that are as far apart as possible, preferably at the opposite ends of the band. Two transmitter stations sited within a few hundred metres of each other and broadcasting on adjacent bands, say 106 and 108 MHz, will certainly risk interference with each other. There will also be risk of the 'capture effect' whereby FM receivers when tuned in between stations will lock on to the stronger station, thereby giving an unfair advantage to higher powered stations. Adequate band separation

through a wise allocation of frequencies can avoid all this. An appropriate solution would be assigning, for example, the frequencies 88 MHz and 98 MHz respectively to stations in close geographical proximity to each other.

32.   One should also provide for those cases where a single station may require more than one frequency. For example, a station may be located in a topographically unfavourable site in the Valley and wish to send its studio signal to a more favourable site, say on a hillside facing the Valley. In this case, the station would need two frequencies: one to originate the programme, the other to relay the programme to the coverage area. A station may also wish to have a second frequency for outside broadcasting coverage whereby a live event is transmitted to the studio and then relayed to the coverage area.

33.   These two frequencies (broadcast and link) should also be separated widely, by eight to ten MHz. It is therefore recommended to plan frequencies for broadcast in the lower band, between 88 and 98 MHz; and to use the upper frequencies, 100 to 108 MH, for link or relay transmissions.

34.   If this principle of a second frequency is accepted, then the maximum number of FM stations in Kathmandu would be no more than five, which within the next ten years should be able to find adequate economic sustenance from commercial advertising. More than five competing stations would radically reduce income for each station.

Maximum transmitting power

35.   If the above recommendation for frequency separation is accepted and enforced, a corollary recommendation would be to set a maximum power for FM stations in each respective coverage area. For the Kathmandu Valley, one could therefore start with 500 watts as the maximum power, with an absolute reserve of one kilowatt for exceptional cases where because of siting, topography or distance from the coverage area, such high power can be proven to be necessary. Acceding to higher power should, however, be an exception rather than a rule.

Co-training was a basic principle, as Upendra introduces the technical aspects of production to the trainees of Radio Sagarmatha. *Photo CAA/UNESCO, Thapathali 1993.*

36. In industrial countries where a proliferation of FM stations has been allowed, one will notice that these stations usually tend to broadcast with extremely high power, averaging ten kilowatts, and often going as high as 25 kilowatts. And yet the coverage area is not significantly increased. This higher power has been opted for mainly as a means to compete with rival stations, to ensure a clear signal amidst the cacophony of competing signals, and to take advantage of the 'capture effect.' For developing countries, this is wasteful and unnecessary, if frequencies are properly managed. Rather than resort to solely higher power, it is more economical and professionally satisfying to opt for more astute engineering: higher masts, correctly designed antennas, adequate siting of antenna to cover the target area.

Programme profile

37. A second consideration should be the programme profile. If new stations will cater only to music and commercials, they will be actually doing less than Radio Nepal does already. Furthermore such stations risk becoming purely business enterprises with little or no social outlook. The educational and developmental objectives envisaged when the Communication Act was formulated will be entirely lost.

38. It is therefore strongly recommended that organizations submitting proposals for FM radio also provide a sample of their programme profile which should show a *minimum* percentage of airtime for dedicated educational programmes. This of course does not mean that educational programmes cannot also be entertaining, or woven into more entertaining formats, such as a conversational magazine or music programme, quiz, competition, interview or other formats. What is essential is that within such a programme, educational content must be evident and well prepared.

39. If a station is broadcasting only three hours a day, it may be relatively simple to ensure at least one hour of educational programmes, or more than 30%. A station broadcasting for 12 hours a day, however, may have great difficulty producing that same 30% which then would be equivalent to almost four hours per day! The audience might also be deterred from listening to such a station which in the name of education, daily risks giving an overdose of it.

40.   Therefore, educational and cultural programme percentage should be determined in terms of total airtime per day. And this may be best portrayed as a sliding geometrical scale as follows:

Total Airtime in hours	3	6	9	12	15	18	21+
Educational Portion	1 (33.3%)	1:15 (20%)	1:30 (16%)	2:00 (16.5%)	2:00 (13.3%)	2:15 (12.5%)	2:30 (12.5%)

41.   From this it can be seen, that there is a gradual progression as stations increase daily airtime. Educational programming does not become a chore, but is rather proportional to overall airtime.

42.   It should also be recalled that effective educational programmes require more time to prepare, a larger number of resource persons, and a more didactic approach to preparing scripts and programme segments. An average of 12 to 20 hours or more preparation for 1 hour of programme is not exceptional, even presupposing a team of three to four persons. Given the normal staff of a station, it should not be difficult to fulfil the above schedule. But demanding more educational time could end up in repeat programmes and even sloppy programme preparation, both of which would defeat the purpose of the Communication Act and force the audience to turn to more entertaining stations.

43.   This being said, those organizations, who because of their resources and contacts can exceed these minimum requirements should certainly be encouraged to do so, but this should not be reduced to a contest of counting educational minutes on the air.

Synthesis

44.   Preliminary criteria for accepting proposals for the establishment of FM educational and community radio in the Kathmandu Valley may therefore include the following:

a)   Accordance of an absolute maximum of only ten FM broadcasting frequencies in the Kathmandu Valley thus providing a frequency separation of a full 2 MHz between each originating station. If a second frequency is to be provided for each station, this would mean that only five FM stations would eventually emanate from the Valley. It would be both wise and beneficial to consider not more than two or three stations as a start, and only gradually allocate further frequencies until the maximum of ten is met, but over a gestation period of say five to ten years.

Radio links the people to their larger community, enabling voices of the ordinary person to reach the airwaves, as in this test programme on pollution and traffic in the Himalayan capital. *Photo KL/UNESCO, Kathmandu 1993.*

b)   Allocation of frequencies as far apart as possible, to stations that are in close geographical proximity to each other; and between the link frequency and the broadcast frequency of the same station.

c)   Maximum transmitting power should be limited to 500 watts within the Kathmandu Valley, and strict criteria should be set up for allowing higher power, but not to exceed one kilowatt, provided that the principle of a maximum of ten frequencies (five broadcast stations) is respected.

d)   Proponents of FM educational radio should provide a programme profile to show the expected proportion of educational programmes they will produce and air.   The proportion of airtime of these programmes should be in function of total daily airtime.

IV   Preparing the Foundations for Community Radio

Name and Identity

45.   FM community radio is new in Nepal, although the national radio has been broadcasting continuously since 1951. A new station therefore has to establish its identity, quickly, surely and permanently. Preferably, it should have a name that also gives its ideals, principles and goals. Several names have already been put forward: Radio Kathmandu, FM Kathmandu, Kathmandu Broadcasting Corporation, Sky Wave, Radio Himalaya, Wave Nepal, FM Nepal, Green Voice, Voice of Himalaya, Voice of Everest.

46.   Another name to be considered for the station to be set up by the NEFEJ is *Radio Sagarmatha,* the Nepali name for Everest, but literally meaning *the head in the heavens.* It is suggestive of the higher spirit of man that guides life with intelligence and foresight, that seeks to conserve nature, as Mount Everest itself is the very symbol of environmental purity. *Sagarmatha* can be used, if this name is properly identified with the station's ideals through its signature ID,   sign-on, on sign-off and at appropriate time slots during transmission. A suggested sign-on with this idea in mind can be found in Annex V.

47.   Also, in the context of station identity, great care should be taken in the selection of continuity announcers, as their voices will be the constant link with the audience and their personalities will to a large extent set the tone for the station's image. Since FM broadcasting produces a far more intimate sound than medium wave, considerations of voice level, 'warmth,' ease of presentation, become all the more important. Wise selection of all continuity announcers cannot be overestimated.

Organization of the Station

48.   As an initiative of non-governmental organizations, it is envisaged that this community radio station would have a Board of Directors under NEFEJ as the principal proponent. As a collective group (each usually having a single vote), the Board defines and steers basic station policy and relates to the management of the station through the Director who is also ex-officio Secretary of the Board. A membership structure for this Board has been proposed and may be found in Annex II.

49.   One innovation to consider is the inclusion on the Board of two senior citizens, each entitled to a single vote, but they need not be connected with any other member institutions on the Board. It is suggested that one of these be selected as far as is possible and realistic, from those who might be able to represent the mass public: a village leader, a successful farmer or cattle herder. One Asian communication researcher once said: "One has to bend backwards, if radio is to serve the community." Given the difficulties of adequately representing the general public, this gesture might well succeed in obtaining valuable information and contacts concerning village and rural life. It will also contribute to helping the station 'speak the language' of its audience.

50.   The other senior citizen might be selected from among professionals at large, whether or not in broadcasting, either formerly or currently. The purpose is to seek advice, information and experience from people who have gained such during their own careers, and can now contribute these to the new station. Such representation also serves to reduce in-breeding in terms of attitudes and policies, as well as to balance views and decision-making.

51. Given the limited start-up resources of any radio station, it would be wise to start modestly with a small but compact team whose energy and skills can be applied to all and any tasks of running a radio station. An absolute minimum would comprise: a Station Director, Programme Manager (with radio producers), Technical Operations Manager (see Annex II). Gradually, as the station develops, this compact team will begin to specialize its tasks into the kinds of programme formats to be produced (interviews, discussion documentary, magazine, announcing), and specific technical tasks (transmission, production, maintenance); management may also have to diversify into administration and finance. Thus, what begins as a highly simplified multi-task team, eventually develops into a larger, highly specialized staff (see Annex III).

Studio Design

52. The Nepal Forum of Environmental Journalists recently moved to a new four storey building in the Thapathali district of Kathmandu on a slightly rising hillside. The first and second floors are allocated for office space of the Forum, the Global Environmental Project and Small Grants Programme supported by the World Bank, United Nations Environment Programme (UNEP) and UNDP. Reception, control room and studio are located on the third floor, while the fourth floor provides a large conference space that can be sub-divided into smaller work areas. When required, this area could also be wired to the control room downstairs so that activities on this floor could be recorded or simultaneously aired.

53. A design has been suggested with the intention of providing a self-operating studio, with a control room for back-up and on-air monitoring (see Annex 1). The design aimed at capitalizing on the limited space with a minimum of renovations to the building. It should be borne in mind that this building was not constructed according to the norms for a sound recording studio, and therefore there is no floating foundation nor provisions for the usual sound-proofing of windows, doors and walls.

54. Renovations shall therefore have to take account of the following:

a) It is essential that the studio room is completely insulated from all external sounds and vibrations. For this it is suggested that a second

inner wall be constructed, leaving 5 to 7 centimetres airspace between the new wall and the original wall. The new wall should be constructed of fairly thick sound board (at least one centimetre). Optionally, this may be painted or draped with local tapestries. Windows should be double-glazed and covered with thick curtains.

b)   A second, thick carpet in this studio would ensure further insulation from external sounds coming from the floor below. Such a carpet might be ordered locally and show Nepali cultural patterns.

c)   A window should be constructed between the control room and the studio. It should be rectangular and measure approximately 80 by 120 centimetres or larger. There should be two panes of thick glass spaced about 12 centimetres apart. Each glass pane should have a rubber binding all around it to further hinder vibrations and sounds entering, and especially resonance of the glass itself. Similarly, all other windows of the studio should be double-glazed and covered with heavy curtains.

d)   As sound travels in straight lines and in a square room can rebound endlessly producing unwanted echoes, it is advised to use amorphously shaped furniture, such as the kidney-shaped announcer console, and to place this at an angle which avoids sound rebounding in corners. The table should be thickly padded, to avoid sounds of rustling papers and movements of arms and fingers on the table. This seemingly large console table is suggested in order to accommodate either the single announcer or a group discussion. It is therefore flexible and avoids constant moving of furniture and equipment.

e)   Preferably and as far as possible, microphones should be suspended from above and not touch the table. For this, special mounts can be built that hang from the ceiling, and from which microphones can be pulled down to proper height and adjusted for voicing. Microphones should be nested in cradles held by elastic bands to the mounting. This will also prevent accidental bumping of microphones while manipulating the console or other papers and objects on the table.

f)   The entrance to the studio should have double doors with a suitably large sound lock between the two doors. A red light, warning "on air" should be placed above each door. This is preferably activated by any

studio microphone and will deter noisy entrances into the studio while the station is recording or on air.

g) It is urged that the air-conditioner be installed on the narrow terrace outside the control room, with insulated ducting to bring silently warm or cool air into the studio .

55. Further details and specific recommendations can be found in the UNESCO Monograph Series on New Communication technology and Utilization, prepared by the Communication Division, Michael Roberts, *Low-cost Sound Production: technical notes for the non-technician* (Paris: UNESCO, 1981) copies of which have already been provided to NEFEJ.

Transmission

56. It is recommended that the project start with the UNESCO-designed 20 watts VHF exciter/transmitter coupled to a 100 watts amplifier. This should be installed in a separate rack in the control room on the third floor. It is also recommended that a back-up transmitter and amplifier also be supplied, in order to maintain transmission during maintenance and repair. Estimated cost of these items, including cables, connectors and antenna is less than $10,000.

57. From the control room, a cable not exceeding 15 metres should reach to the roof over the fourth floor where a short mast (3 metres) should be installed with a simple di-pole antenna configured for horizontal polarization. Should the principle of only ten frequencies on FM band be followed and power be limited to a maximum of 500 watts, this 120 watts configuration should suffice as a first experiment. Power may be increased to 500 watts if deemed necessary to maintain signal strength in competition with other transmitting stations. But with no other frequencies used on the FM band, 120 watts should reach most parts of the Valley with a clear signal.

58. As this is an experimental FM station, the project may also wish to consider assembling its own FM transmitter and amplifier. The transmitter kit is modular and makes use of several integrated chips, thus simplifying what previously would be a long and tedious chore with high risk of error. This would not only constitute some savings, but would also ensure more

solid preparation maintenance and repair tasks. The project might also be a low-cost source for transmission equipment for other FM stations.

Programme Profile

59.   Most commercial stations prepare a quarterly programme grid. This is to show the number and kinds of programmes, the tentative time slots, potential sponsors, etc. In most cases, the grid responds as closely as possible to audience availability and preferences. It will also show the proportion of educational and informational programmes in comparison with those that are mainly for entertainment. A suggested programme grid for NEFEJ is provided in Annex IV.

60.   As Radio Sagarmatha is intended to be a community radio station, one cannot over-emphasize the need to build on a strong basis of participatory broadcasting. That is, all efforts should be made to encourage the listeners to participate in interviews and programmes, production formats should be directly oriented to reflecting the statements and views of the people. Hence, the station should have a strong component of programmes like magazines, interviews, panels, quiz programmes, community bulletins, and similar programmes that give voice to the people. Radio Sagarmatha should be 'people talking to people.'

   Formats

61.   Many journalists of the Forum are already familiar with the standard formats employed on radio, such as news, straight talk, drama, and even docu-drama.   NEFEJ has already had more than two years' experience in producing its own environment programme on Radio Nepal. One format, however, that was unfamiliar to the NEFEJ staff is the magazine.

62.   This is usually a one- or two hour-programme broken into smaller programme segments and stitched together with music and continuity announcing. A typical magazine might be logged as follows:

   — Signature tune and intro followed by a community bulletin

– reading of letters from the audience

-- interview with a fisherman facing polluted rivers

-- documentary on how indiscriminate dumping of mineral wastes can pollute water

– a musical piece sung by children of a local school on the theme of a clean environment

– reading of an essay by a known Nepali writer on the Himalayas and environment, with a musical piece playing in the background

-- wrap up and extro, with signature tune.

63. Presented in this way, the hour is broken into six smaller programmes each of which can be prepared by a separate producer or by the team. The whole programme is scripted and read by one of the continuity announcers or by the overall producer. Seen in this way, such a programme will certainly require a team to produce on a daily basis.

64. Other useful and practical formats, already well known, include:

-- Musical programmes. These cannot be overstressed. While music in Nepal is highly appreciated, it is not always an easy matter to obtain Nepali music that is professionally recorded, and therefore of high quality, even when played on cheaper cassette decks and walkmans. Cassettes with Nepali music are the least available, the least sold in stores, and normally are of inferior recording quality. It is particularly difficult to find well recorded Nepali flute music in Kathmandu, although flutes are widely played in many villages.

65. Radio Sagarmatha has a potential role to play in collecting, recording and documenting traditional as well as modern Nepali music. These pieces will not only serve as a programme on their own, but can also be used for signature music and sound accompaniment for other programmes. It is strongly recommended that this be one of the main programme efforts of the new station. Radio Sagarmatha could well have a pioneering role to play in this field.

--   Talks and interviews. Recordings can be done in the studio, or in the field with either single and multiple interviewees, or a forum or panel discussion.

--   Quiz programmes. These can be for children, farmers, general public; they are also a built-in way of obtaining feedback.

--   Literary reading. Authors or well trained readers can present essays, poems, stories of published writers, sometimes to the accompaniment of music. This programme, which can also be sponsored by book stores and publishers, also serves to promote native writers.

--   Children's programmes. A variety of approaches can be brought into play: interviews, songs by children, dramas presented by them, musical pieces, story-telling. This programme has the potential to promote schools and the educational programmes generally.

--   Short spots. For a station like Sagarmatha, it would also be appropriate to insert short spots. These are usually one minute messages mixed with appropriate music or sound effects. With tight scripting, they could even be short mini-dramas ending with a conclusion or challenging question. For best effect, they should be scheduled with the Station ID and time check (TC) just prior to a new programme. To have their best effect, these spots should be timely and changed regularly. For this, the station should have at least one person assigned to scripting and production of spots, though the inspiration for the topics and messages can be obtained through team discussion and feedback.

--   Reflections. In keeping with the religious values of the Nepali people, it would not be out of place to associate a closing reflection with the station's sign-off. This should be phrased as neutrally and as non-institutionally as possible, but should emphasize basic, universal religious values and ideals.

66.   When starting a new radio station, it is not out of place to say that everyone needs training, though training may take on several forms. The important thing is to gauge the present abilities and build on them, to go further into the professionalism of radio broadcasting.

Prospective producers and technicians set up an experimental studio, to record statements and mix tapes for a test programme. As many chores are done sitting on the floor, it was not difficult to conceive of a studio in a similar mode. *Photo KL/UNESCO, Thapathali1993.*

Basic concepts and approaches

67. NEFEJ has already started some training by organizing a seminar on community radio in November 1993, just before the mission. This seminar discussed basic concepts of organization, approach, economies, management. Many practical and innovative ideas were culled and reported; they will be edited and enhanced by new information, and eventually constitute the dossier for the presentation of the new station. Further such seminars, roundtables and similar discussions are certainly to be encouraged and can add significantly to the overall stock of experiences.

68. It is also suggested that, as finances and availability permit, key personnel of the new station visit other community radio stations in the region, notably: Mahaweli Community Radio in Sri Lanka, Tambuli Community Radio in the Philippines, and one of the several aboriginal radio stations in Australia.

Organization and management

69. Most of the senior staff of NEFEJ have already had experience in management: of their own environment activities, national and regional seminars, local projects. It should be emphasized, however, that in addition to basic management skills, radio management requires: timing, precision, discipline with cleanliness and maintenance, and above all a sense of teamwork.

70. Supplementary management courses can be arranged at the Asia Pacific Institute for Broadcasting Development (AIBD) in Kuala Lumpur. While the usual member and beneficiary is the national broadcasting organization, other broadcasters may apply individually for courses. For management of small community stations, it may be well to focus on courses in supervisory management, finances, marketing and advertising.

Production of programmes

71. Many of the staff and co-operating partners of NEFEJ are journalists or have some journalism background. They are therefore already oriented

to participatory or 'people-centred' programming and have the basic skills of writing and reporting. A number are accustomed to searching out information and programme material in the field, through interviews with people in the streets, in tea houses, even at the emergency wards of the hospital.

72. Most, however, will have to take an extra step to advance from interviews to obtain information for a written article, to interviews which themselves become the programme. They will also have to learn to 'speak' scripts, rather than merely read them. Extreme care will have to be taken in voicing scripts , as FM tends to register every inflection of the voice with cruel accuracy!

73. Staff producers should learn the practical techniques for producing various formats, as outlined in the previous section.

Production techniques

74. To execute the programme formats described above, the production team will need to acquire skills in a number of related techniques. Schematically, they can be represented as follows:

Script-writing -- when and how to use scripts; purpose of scripts (announcing, technical operations); structure (style, format, editing); making notes for ad lib; writing for radio.

Interviewing techniques -- The staff should learn to edit interviews and understand well the role of the moderator in panel discussions. As the station progresses, they should also learn to handle phone-in interviews and phone-in programmes.

Announcing -- Voice characteristics with particular attention to FM broadcasts; techniques (breathing, relaxing, exercises); speaking a script, rather than reading; microphone techniques, positioning, handling.

Use of Music -- as an accompaniment to other programmes, as a theme or signature (thus helping to create a listening habit), to strike or

change a mood, to entertain, music as message, instrumental versus vocal; structuring musical programmes.

Handling of equipment -- basic handling of microphones, tape recorders, mixers; the aesthetic approach versus the purely technical, using one's ears to judge results; blending of voice and sounds; use of wild sound; being able to improvise in the field; preparing one's field kit (see Annex VI). The new staff should also establish good 'equipment hygiene,' that is habitual practice of protecting recorders and microphones from excessive heat and dust, keeping them away from magnetic fields, labelling tapes comprehensively and correctly, and maintaining technical equipment.

75. As required, production and technical courses should be organized from time to time.

Technical operations

76. The nucleus of the radio station is the control room which houses the equipment for production and for transmission. In the case of Radio Sagarmatha, it is proposed to use the UNESCO-Mallard 20 watt transmitter coupled to a 100 watt amplifier. A cable of some 15 metres will link the output of the transmitter/amplifier to the antenna, a simple di-pole. If necessary a mast can be installed on the roof of the NEFEJ building to ensure a higher antenna mount. Most of this work should not take more than a few days. The longest part will be constructing and installing the mast and preparing cabinets to house the transmitter.

77. Technicians should have a solid background in electricity and basic electronics, including semi-conductor technology. Such courses should be available in Nepal or in neighbouring India. Prospective technicians should be involved in the installation of the transmitter, and if it is opted for, they can also be instructed in the assembly of the transmitter. This will ensure a more comprehensive understanding of how it works, how it can go wrong and how it can be repaired without recourse to external expertise or searching for expensive and hard-to-get components. A training course on transmitter operation and maintenance can be arranged following the installation.

78. The other technical work of the radio station is the technical support to programme production: handling and maintenance of equipment, operation of studio equipment for mixing and recording. While a solid basis in electronics is certainly needed, most of the technical work in production is artistic and requires more a creative ear and a creative attitude, bearing in mind the standard requirements for professional broadcasting. Most training courses will instruct in how to operate the equipment technically. Very few courses teach how to operate the equipment artistically.

79. In the production situation, this is where producer and technician must blend their efforts harmoniously. Hence, as far as possible, it is best to train producers and technicians together. And in small community stations, it must be borne in mind that very often, producers may be working without a technician and therefore have to do both the producer's and the technician's tasks.

Research

80. Research is often the discipline left for last place or left out altogether. And yet, research is the most important part of a station's operation, as was also recognized at the preparatory seminar of NEFEJ in November 1993. Ideally, a baseline research should have been undertaken to determine the prospective audience's tastes; their preferred listening hours; the profile of the audience in terms of sex, age, socio-economic background, and so forth. This information could have been fed into the production schedules and would help determine the kind of formats and approaches to use.

81. Very likely, new community stations would have neither the funds nor the personnel to recruit a full time research staff. A practical alternative is to make use of research resources that may exist in other institutions. Some of the NEFEJ partners do have research background and this resource should certainly be called upon. A handy reference for broadcast research is the recent monograph issued by the Communication Division, Graham Mytton, *Handbook on Radio and Television Audience Research* (Paris: UNESCO, 1993).

82. At an appropriate point in the station's operation it would be helpful to conduct an audience research; as required, this can be built around a training course in research.

AV library and archives

83. Similarly, audiovisual library and archives are also often relegated to last position. Well organized, this can be one of the station's major assets. It is suggested that a part-time or full-time librarian or documentalist be recruited as soon as possible.

84. With computerization, the librarian's work can be greatly simplified. Complex, tedious and repetitive work can be assigned to a simple database which lists all holdings (author, title, language, technical data, script data) and can be retrieved immediately. In Bhutan, the radio staff uses Hypercard on the Macintosh to prepare all programme and news scripts. Writing the script on Hypercard automatically stores it in the database with all pertinent information. The work of documentation in this case is done at the time of scripting, it is not a separate task. Kept on a large database, all such information over the past year(s) can be searched and recalled.

85. The librarian's role will be all the more important if Radio Sagarmatha will take practical steps to collect and record traditional and modern Nepali music. This may need the help of a musicologist to assist in determining types, sources and origins of musical pieces that up to now have not been documented.

86. Most training for this work is likely available in Nepal, though it may help to have exposure to actual AV libraries in the region and to see how they operate.

Radio is basically people talking to people. Producers practice interviewing
in imaginary situations, to get the feel of conversation and speaking with
people, not at them. *Photo CAA/UNESCO, Thapathali 1993.*

VI   Immediate Introductory Training

87.   In the second week of the mission, a seven-day training session was
organized with the purpose of exposing the participants to the various tasks
involved in producing programmes for radio. As the team already
possessed a quantum of various skills, the results were highly successful.

Three had previous programme production experience, one of them for four years in a foreign radio station; another had background in research with several regional and national organizations; and another was quite skilled in handling technical sound equipment and even provided many components for the training, such as his own mixer. While the course covered only basic techniques, the team was able to produce a half-hour magazine type programme, which augurs well for the future successful operation of Radio Sagarmatha.

88. One difficulty was obtaining a sufficient amount of production training equipment, in addition to the two portable cassette recorders lent by the Nepal Press Institute. As indicated in the terms of reference for the mission, discussions were held with Nepal Television on how the sound production equipment of the former IPDC project, Traditional Folk Music Recording and Documentation Centres (352-NEP-01), was being used. The mission was informed that around August 1993, when the studio was completed and ready for occupation, the equipment was unpacked and itemized. Some items (namely one Sony TCD-5 cassette recorder, the mobile console with mixer and built-in cassette recorder, 3 microphones and 3 headsets were assigned for use on a training project in co-operation with Finnish Broadcasting to record videotapes of cultural events and ceremonies in risk of disappearance. This is a project funded by Finnida for two years and aimed at producing a series of highly professional videocassettes on cultural topics and issues for commercial distribution.

89. As the use of this equipment conforms basically to the original concept of the project, the Secretary of the Ministry of Communication was requested to transfer the equipment not used by the video project to the Nepal Forum of Environmental Journalists for use on their training courses in preparation for the establishment of their FM community radio station. This equipment is listed in Annex VII.

90. For the training, however, only one Sony TCD-5 cassette recorder and two Uher tape recorders were actually transferred to NEFEJ. This was adequate for the training course, as there were already a professional cassette recorder and microphone and a mixer (provided by one of the participants). But the remaining equipment of the Folk Music project will be extremely useful in the continued training exercises that NEFEJ will be organizing in preparation for the new station.

91. Given the limitations of time and facilities, the objectives of this training course were pared down to realities: to expose print journalists to the potentials of sound production in anticipation of Nepal's first FM community station. Depending on their enthusiasm (which was high) and their aptitudes (also high and well based on related professions), it was anticipated that the participants might even achieve a basic, though rough production. But at least the criteria, the approach, the understanding of basic concepts would have been gained, to be later honed to higher quality with added experience.

92. Lectures were immediately eliminated as a method of instruction. It was felt best to start 'hands on.' The first morning, after brief introductions, was spent analyzing and criticizing two sets of interviews recorded by the trainers in the previous days, using only the non-professional cassette recorders. In the ensuing discussion, the participants literally tore the interviews apart, both from the technical and the contents points of view, and volunteered to do a better job themselves. This was done in a series of 'role playing' exercises: a beauty parlour, a clothes shop, an educator in the villages.

93. Later in the analysis, the participants reviewed each other's programmes in a constructive and friendly manner: speaker was too close to or too far from the microphone, cable noise, unstructured questions, replies too pompous, no identity of speaker, forgot to thank interviewee, no introduction, no wrap-up at the end. These were, of course, the very points to be conveyed, but the participants self-learned them on their own. The participants were also encouraged to play around with the equipment and familiarize themselves with microphones and recorders, so they could go out the next day with confidence and do recordings in a real situation.

94. A magazine format was chosen as a suitable format for sample production. By using the 'focussed statement' approach (as described in the Development Broadcasting Manual, pages supplied), the overall theme of environment was eventually narrowed down to a programme on traffic with three main components: accidents, air pollution, and 'what's being done about it?'

95. The steps followed in producing the sample programme were fundamentally different from what would normally be the case:

--   the field interviews formed the basis for programme content.

--   only after the field tapes had been recorded was a script prepared, tying together the various views expressed with additional factual information for narration at the presentation stage.

--   the field interviews were not edited, but carefully indexed for direct insertion at the assembly stage.

--   a studio script was prepared before assembly, but altered in the course of mixing in order to better match the narration with the recorded material.

96. The target duration set for the programme was 30 minutes, but no meticulous timing was done in this training exercise. As it turned out, however, the programme ran to exactly 29 minutes, thus allowing for perfect cueing into a 30 minute time slot.

97. Another exercise involved the technique of 'speaking' a script rather than merely reading it. This session was combined with a story-telling exercise in which each participant was asked to adapt a Nepali folk tale for telling over the radio. Prizes were awarded for the best adaptation and presentation respectively.

98. Given the informal character of the training, post-evaluation was done in the form of a final discussion, part of which was recorded. In general, the participants seemed to be pleased with the rather loose structure of the course. This enabled them to learn from each other in the course of carrying out the various practical assignments. Several participants pledged their personal support and assistance once Radio Sagarmatha was on the air. Over seven days, lasting friendships were made.

99. Attendance was 100% throughout the training, with only two participants absent for short periods due to professional commitments. Another source for evaluating the course is the magazine programme

produced during the course, which although not technically perfect represents a team effort in which none of the participants was left out.

VII   Conclusions and Recommendations

100.   The mission has encountered serious, professional partners for the eventual establishment of private sector operated community radio. The further reinforcement from professionals of the Nepal Press Institute and *Himal* magazine serve to strengthen the human resources for the new station.

101.   Learning capacity was extremely high and counterparts were strongly motivated. The mission also noted a firm will 'to do things on their own,' without seeking external assistance, whether for equipment or funds. The primary NGO partner, the Nepal Forum of Environmental Journalists, had already taken the initiative to seek a new and larger building and reserve adequate space for radio production facilities. They had already conducted an internal seminar to seek new ideas and experiences in community radio in Asia, that may be relevant to their situation.

102.   There will still be need of an ongoing programme of training in the various aspects of broadcasting described in the previous sections, and as funds permit study tours to selected community radio projects in Asia would help in rounding out experiences.

103.   As NEFEJ has already prepared a solid foundation and has the infrastructure and logistics to continue, a modest project ($147,000) can be formulated to encompass the following:

a)   Training consultants for short periods over a two year span, to be recruited from community radio projects in Sri Lanka, Bhutan and the Philippines ($40,000).

b)   Study tours within the Asian region ($20,000).

c)   Equipment, comprising studio production, field production and transmission ($65,000).

d)   Evaluation and reporting ($12,000).

e)   Core funds for installation, local works, furnishings ($10,000).

Recommendations

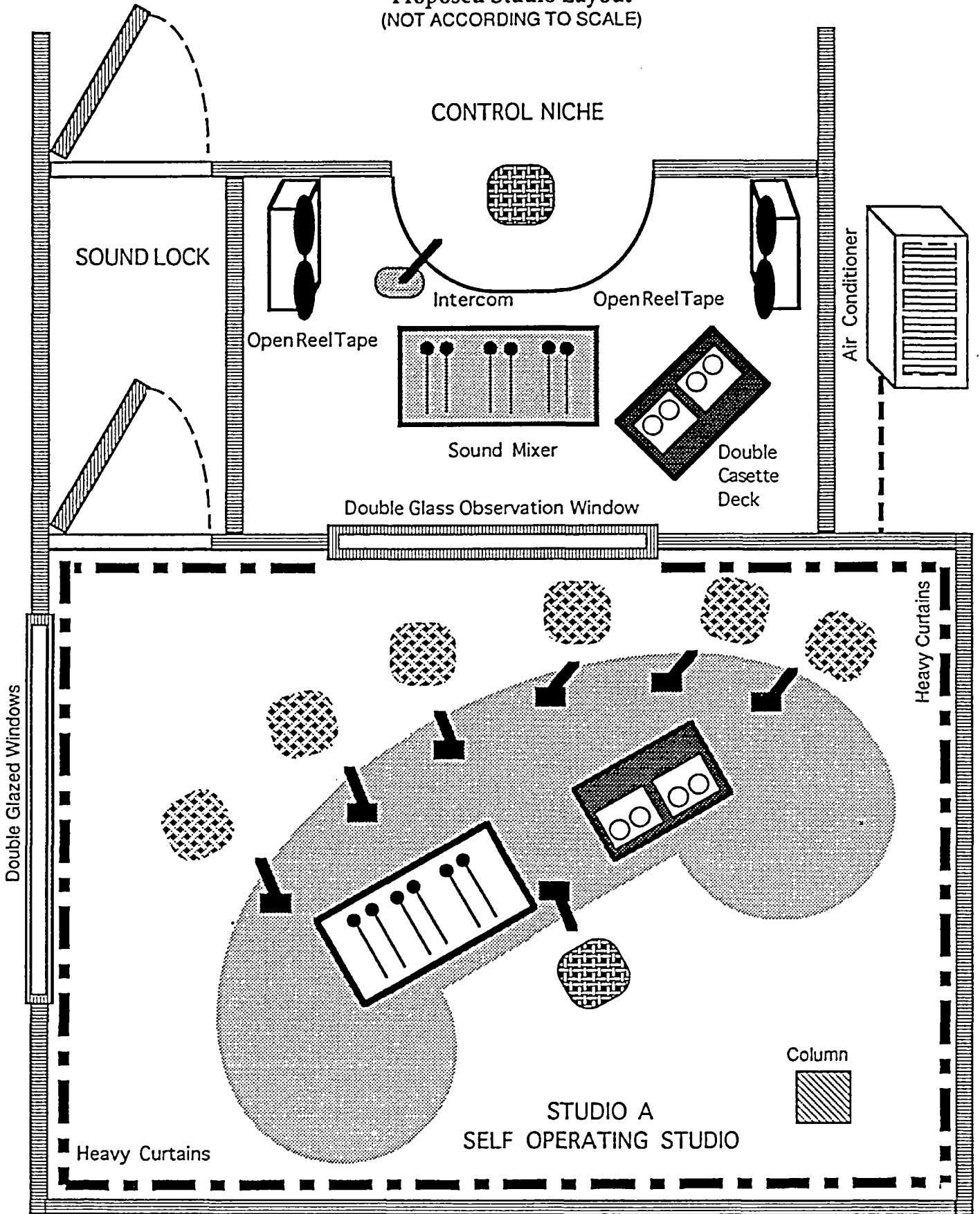104.   In the light of this report, the mission recommends the following:

a)   That the Ministry of Communication study the suggestions proposed in this report for setting up objective criteria for the acceptance of proposals for the creation of private sector FM radio, in particular the limitation on the number of frequencies to be assigned, the number of stations and the maximum power to be allowed.

b)   That, in the light of these criteria, the proponents of the new station under the leadership of NEFEJ, finalize their dossier for submission to the Ministry of Communication.

c)   That, in anticipation of an eventual project and the establishment of the station, NEFEJ, within its resources, continue its programme of training in radio production and programming.

Annex I

Proposed Studio Layout
(NOT ACCORDING TO SCALE)

CONTROL NICHE

SOUND LOCK

Intercom

OpenReelTape

OpenReelTape

Air Conditioner

Sound Mixer

Double
Casette
Deck

Double Glass Observation Window

Heavy Curtains

Double Glazed Windows

Column

STUDIO A
SELF OPERATING STUDIO

Heavy Curtains

Proposed Table of Organization

Board of Directors

Nepal Forum of Environmental Journalists

Nepal Press Institute

Himal Magazine

Worldview International Foundation (Nepal)

Station Director (ex-officio Secretary)

Two senior citizens
selected for one year terms by the other members

Station Director

Programme Manager   **Technical Operations Manager**

Producers   (5)   Technicians (2)

[External Producers]

Note

At the start, the station can commence modestly with few personnel, each ready to undertake polyvalent tasks. In this spirit, producers will have several production responsibilities and will likely create the greater part of the station's programmes. As the station develops, while they should still maintain their own programmes, they will be increasingly called upon to act as counsellors and advisers for productions prepared by external organizations. This is shown in the following annex.

Annex III

Expanded Table of Organization

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Board of Directors

Nepal Forum of Environmental Journalists

Nepal Press Institute

Himal Magazine

Worldview International Foundation (Nepal)

Station Director (ex-officio Secretary)

Two senior citizens
selected for one year terms by the other members

</div>

Station Director

Administration and Finance Manager	Programme Manager	Technical Operations Manager
Secretaries	Supervising Producers (8)	Transmiter Technicians (2)
Drivers	AV Librarian	Production (3)
Security	Research Officer	Maintenance (2)
	[External Producers]	

Note

As the station grows and progresses, tasks will become specialized and provision should be made for expanding the organizational base.

Quarterly Programme Grid

This grid should be prepared a month before the end of the preceding quarter and attempt to show programme changes and emphases as learned from the feedback of the previous quarter. Its purpose is also to show approximate apportion of airtime to specific themes. The grid below shows a half-hour warm-up prior to sign-on at 11:00. Each programme block is expected to be developed to variety and freshness in programme approaches.

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
10:30 - 11:15	modern music Sign-on	traditional music Sign-on	modern music Sign-on	traditional music Sign-on	modern music Sign-on	traditional music Sign-on	modern music Sign-on
11:15 - 12:00	development magazine	development magazine	development magazine	development magazine	development magazine	literary readings	development magazine
12:00 - 12:30	women's personality	women's feature	women's discussion	women's project focus	women's feature	women's discussion	women's documentary
12:30 - 13:30	Youth/music magazine	Youth/music magazine	Youth/music magazine	Youth/music magazine	Youth/music magazine	Youth/music magazine	Youth/music magazine
13:30 - 13:45	Children's story telling	Children's project	Children's interview	Children's songs	Children's poems and readings	Children's storytelling	Children's songs
13:45 - 14:00	Music Sign-off	Music Sign-off	Music Sign-off	Music Sign-off	Music Sign-off	Music Sign-off	Music Sign-off

ANNEX V

Suggested Signature Sign-on

SFX: Strong winds, trees shaking, distant flute becomes louder, playing melodious tune, **HOLD 3 AND FADE UNDER FOR:**

This is Radio Sagarmatha,

the voice of the people.

Radio Sagarmatha brings you the cheer and laughter

of happy homes . . .

the heavings and sighings of the day's hard work . .

the murmurings of little streams,

the roar of mighty rivers,

and why we must strive to preserve our water,

our trees, our environment . . .

to make it more productive for us,

to give our children their future. . .

Radio Sagarmatha brings people together,

to talk to each other, to work with each other,

to make a better world for all

a world of happiness, a world of peace . . . .

Radio Sagarmatha!

SFX: FADE UP FLUTE FOR FLOURISH AND OUT.

Field Producer's Kit

1	professional cassette tape recorder
2	extra sets of batteries
1	hand-held omni-directional microphone and windscreen
1	lapel or lavalier microphone
1	set headphones
2	blank cassettes C-60
1	head cleaning kit
1	small flashlight
1	flask of fresh drinking water
1	light waterproof tote bag

Optional:

For overnight assignments, change of clothing and toiletries

Equipment Requested for Transfer
to the Nepal Forum of Environmental Journalists

1	Revox 807 open reel Tape Recorder
2	Uher Monitor report open reel portable recorders
1	Sony TCD-5 Cassette Recorder
2	AKG microphones
3	AKG Headphones
20	Audio Cassettes C-60
20	reels of 5 inch recording tape
1	pr splicing scissors
1	splicing machine
2-3	rolls splicing tape
6	XLR male connectors
6	XLR female connectors