II

CROSS-CUTTING ISSUES: THE OPPORTUNITIES

Having examined in Part One the main aspects of the global architecture of IPRs, Part Two focuses on some broad cross-cutting issues that could be seen as opportunities for developing countries in the design of intellectual property regimes which are responsive to their local conditions. The following chapters discuss issues such as innovation and creativity, access to new technologies and transfer of technology.

3 Fostering Invention, Innovation and Creativity in Developing Countries

Fostering invention, innovation and creativity in general should be central objectives of intellectual property policies. This chapter starts by reviewing how these activities generally take place. It then considers some IPR disciplines and their relevance to local conditions prevailing in developing countries. It concludes with some broad considerations regarding sectors of special significance to those countries.

Introduction

There is considerable innovative and creative activity in developing countries in areas such as textile design, plant cultivation, medicine, software and music. The key issue is how to translate this creativity and innovation into a process that takes ideas and expressions and transforms them into an end product. In this respect, innovation is heavily dependent on IPRs. As we saw earlier, two essential justifications for IPRs are that they are supposed to provide incentives for investing in R&D and creative activities, and in extending markets for technology and products. At the same time, the exclusionary aspects of strong IPRs can increase costs of follow-on innovation and imitation. Therefore a balanced approach is required, with particular features of the system varying according to the level of economic development. In discussing invention, innovation and creativity, the following considerations deserve attention.

First, invention and innovation are not interchangeable words. Invention is the first step in the development of a marketable new product or process. Innovation comes afterwards. Joseph Schumpeter's well-known definition of innovation (or what he calls "carrying out new combinations") comprises: "(1) The introduction of a new good. (2) The introduction of a new method of production, which need by no means be founded upon a discovery scientifically new. (3) The opening of a new market. (4) The conquest of a new source of supply of raw materials. (5) The carrying out of the new organization of any industry."[1] In sum, innovation is the process that transforms ideas (i.e. inventions) into commercially viable products. Patents, by requiring an "inventive step", protect the creative activity as such, irrespective of the product's actual marketing potential. Innovation connotes newness but it is possible to argue that an innovation for one company or national economy may not necessarily be innovative for another.[2]

There is considerable innovative and creative activity in developing countries

Second, invention is incremental and cumulative in nature. Large breakthroughs in knowledge are rare. But developing new versions of existing products and technologies is common everywhere, including in developing countries. This fact is key to dynamic competition.

Third, innovation is typically associated with developing new ways of doing things that are appropriate or useful for local economic and social environments. Innovators in developing countries may be expected to develop new products (e.g. machines, tools, software or consumer goods) that meet local needs and export niches. Again, this "niche" effect of innovation is important for technology followers.

Fourth, learning how to do things from observing others and from adopting technologies from abroad is another form of technical change. Thus, international investment and trade that generate transfer of technology and skills have important spillover effects. International firms bring new management techniques that may be learned and adapted, while imports of capital goods and equipment stimulate

local technological learning through backward linkages and assimilation and adaptation.

Fifth, creativity is the act of manifesting original expressions through tangible or intangible works including music, software, literary works, artistic works and performances. Many of the intangible expressions can be fixed in a tangible format (i.e. paper, video and audio). Originality can be found in all individuals or societies independently of the level of education, cultural background or development. It can be generated either individually or collectively.

Sixth, invention, innovation and creativity do not operate in a vacuum. They take place in an appropriate environment which includes relevant policies and institutions and, above all, human resources. This report does not deal with this broad development question, but rather with the relationship between IPRs and development. In this context, intellectual property policies should not be seen in isolation from development policies and, particularly in the case of inventions and innovations, from the national innovation system of each country. The general goal of national innovation systems is to enhance a country's stock of technical knowledge and know-how, which occurs both through acquisition and learning of foreign technology and the development of institutions and technical capabilities at home.[3] In effect, therefore, each country has a national innovation system, comprising suppliers, customers, R&D institutions, universities, technological institutes and bridging institutions, such as sectoral technology and innovation centres, industry associations, institutions involved in education and training, and financial institutions geared to financing new initiatives. A key property of the system is not so much its component parts as how they perform and interact as a dynamic whole. However, the level of development, sophistication and effectiveness of the national system of innovation differs among countries.

Whereas many innovative and creative activities have developed against a background of weak enforcement of IPRs, the new global regime requires all nations to protect both domestic and foreign technologies and works from unauthorized use. In this regard, what features of IPRs may be used effectively for fostering creativity and innovation?

The remainder of this chapter looks into some of the features of intellectual property rights and means of designing them to become more responsive to local conditions. It also deals with sectors (e.g. software, textiles and music) of particular relevance to developing countries.

IPRs and local conditions

Patents and utility models

Second-tier patent systems are worthwhile examining

Patents provide inventors with rights to exclude others from making, using, offering for sale, selling or importing their inventions for a fixed period of time subject to certain limitations (box 2.1, above). It is in the specification of these limitations that the competitive or exclusionary features of patents are found. For countries with a weak technological base, the following standards seem appropriate for *invention patents*: (i) wide exceptions, including broad research exceptions; (ii) high standards of non-obviousness and inventive steps; (iii) narrow claims; (iv) narrow "doctrine of equivalents";[4] and (v) transparent and accessible opportunities for opposing patents.

However, there are other second-tier patent systems, such as utility models, which are worthwhile examining, especially for countries where the technological base is still at an early stage of development.

Many countries have adopted a second-tier patent regime, though there is no uniformity as to the nature of the rights granted under it, and the TRIPS Agreement is silent on this type of IPR. It has been referred to variously as a “utility model” (e.g. in China, Germany, Japan and the Republic of Korea), or an “innovation patent” (in Australia), a “utility innovation” (in Malaysia), or a “short-term patent” (in Belgium and Ireland) (see box 1.1 above).

The system normally coexists with major patent regimes. Usually rights are accorded to inventions which show local or regional novelty. Although some countries do insist that the invention have an inventive step, this is usually of a low standard. Indeed, a popular feature of many second-tier regimes is that registration is usually granted upon examination of formalities only, without any accompanying search for novelty or an inventive step. The duration of protection varies among countries, and ranges from 6 to 20 years.

There is persuasive evidence that cheap and rapid second-tier patent protection can improve the environment for effective marketing of incremental innovations by local firms. This is especially so if the protection regime is targeted at local industrial or product sectors that are concerned not so much with major inventions as with incremental or improvement innovation. For example, one reason for the draft EC Directive on utility model protection is the need for a rapid and cheap protective regime for innovations that arise in the following important EU industries: toy manufacturing, clock and watch making, optics, microtechnology and micromechanics.[5] Similarly, Australia introduced in 1979 the "petty patent" system in order to encourage local innovation in small businesses. This, in turn, was due to the nature of the Australian economic structure: it is a net importer of technology, and much innovation is based on improvements rather than on major breakthroughs of technology.

Another major policy consideration for introducing second-tier patent protection is that many of these kinds of innovations emanate from small and medium-sized enterprises, as opposed to larger multinational conglomerates. A developing country should determine whether the current patent regime is attuned to the needs of its businesses and the types of inventions or innovations they produce. The creative activity which originates from small local firms typically is of an incremental nature, and is a prime candidate for free-riding activities by competitors. Furthermore, cost is an essential factor for such firms in deciding whether to use the patent system or not. The second-tier patent regime tends to be cheaper, with a higher rate of processing applications due to the fact that there is no substantive examination. The downside of this type of protection is that, due to the lack of examination, it does encourage unrealistically broad claims which can only be verified by reference to an examining or judicial authority.

However, much depends on the technological sophistication of a country. A prime example is Japan, which was the first Asian country to introduce utility model protection. There has been a steady drop in applications for registrations: from approximately 191,000 in 1980 to 77,000 in 1993 and 10,000 in 1999. There are various reasons for this. First, the Japanese Government revised the utility model law and introduced a “no examination” rule, while curtailing the duration of protection from 10 to 6 years. One commentator states that these revisions to the law have meant difficulty in obtaining judicial or administrative relief and a loss of confidence as to the validity of non-examined rights.[6] Secondly, since the total number of patents granted increased during this same period,[7] another explanation is that there has been a shift in the Japanese innovation culture. Japanese industries tended to focus on incremental innovation rather than radical innovation during the period from the post-war years to the 1980s and this trend has since been reversed. This in turn has meant that the utility model system is no longer seen to be as vital as it had once been.[8]

Second-tier patent protection can improve the environment for effective marketing of incremental innovations

Another important policy factor is the registration climate of the country. For example, statistics show that local firms in Germany, Japan and the Republic of Korea are relatively heavy users of the utility model system, whereas the figures for Australia and many European countries are startlingly low. The reason could be that German, Japanese and South Korean local industries are extremely knowledgeable about the system and utilize it to its fullest extent. Moreover, culturally and economically, registration-based rights are valued more. Thus, introducing a second-tier patent regime for local innovation will be of no avail if there is no national resource to create the user base (which includes not only inventors, but also patent attorneys).[9]

With respect to the use of "utility models" in the context of developing countries, the Report of the Commission on Intellectual Property Rights (see box 1.1, above) concluded: "Rather than diluting the patentability standards to capture the incremental type of innovations that predominate in many developing countries, lawmakers and policy makers in

these countries should consider the establishment of utility model protection for stimulating and rewarding such innovations. Further research would seem desirable to assess the precise role that utility model protection, or other systems with similar objectives, might play in developing countries." (Commission Report: 121)

Industrial design protection

Local designers and artists face obstacles with a registration-based system

Another type of patent-related policy that can be pro-competitive is industrial design protection (see box 1.1) which offers a minimum of 10 years' protection and protects designs which are either new or original.[10] Most industrial design laws are registration-based (though the United Kingdom and Hong Kong (China) have unregistered design laws as well). However, there are many obstacles which local designers and artists face with a registration-based system. First, the registration formalities can be complex and difficult to comply with, especially in respect of details, such as the dimensions of drawings or types of photographs.[11] Second, many design products require market testing in order to decide which specific design collection deserves registration; this behaviour is not assisted by the criterion of novelty and the corresponding lack of a grace period.

One important policy argument against the introduction of a registration-based industrial design system is the decline in the rate of international registration, thus proving its unpopularity with industry. This is particularly true for the developed countries.[12] [13]

Some countries may first wish to take advantage of the flexibility within the TRIPS Agreement and opt for the lower criterion of protection such as "originality", which requires that a design be creative rather than new. Secondly, is it necessary to adopt a registration-based system? Since 1988, the United Kingdom has provided a third layer of protection for designs with the "unregistered design right". In December 2001, the EU followed suit when the Council of the EU adopted Regulation (EC) No 6/2002 on Community Designs, which provides a short-term unregistered design to go with the longer term registered design already in existence. This regime resolves many of the difficulties discussed above by offering designers and innovators a copyright-type of protection.[14] Moreover, the United Kingdom's approach is available to both aesthetic and functional designs that are not commonplace in the product market in question, thus acting as a bridge between patents, utility models, copyright and unfair competition protection.

Trade secrets

Another form of technology protection is trade secrecy. Trade secrets are protected from disclosure by dishonest means, but once learned through reverse engineering, they enter the public domain. Trade secrets are important for protecting unauthorized exploitation of inventions that are not patentable or for which the costs of patenting may be too high.

Historically, the protection of trade secrets raised fears that lone inventors might create absolute and long-lasting barriers to entry through non-disclosure of their discoveries. The patent system counters this threat by encouraging full disclosure of technological breakthroughs in exchange for fixed-term exclusive rights. Some approaches towards trade-secret law remain largely coloured by this nineteenth-century tradition, which rests on the legendary solitary inventor.

In modern economies based on constant technological innovation, however, the lone inventor has given way to team research conducted along scientific lines, often in universities or research institutions. The ability of any single firm to prevent others from duplicating undisclosed research results after an initial breakthrough has greatly diminished, while pressures within university communities favour publication of basic research in the interests of science. As regards applications of basic research to industry in this environment, the protection afforded by the patent system offsets some of its monopolistic effects by driving all routine innovation into free competition on the general products

market. Trade-secret laws then regulate the pace of competition by protecting innovators against commercial bribery and industrial espionage, while endowing second-comers with an absolute right to reverse engineer or to independently discover non-protected innovations. [15]

A pro-competitive trade secrets law could play a catalytic role in promoting local innovation. Components of such a pro-competitive regime would be: (i) eliminating obvious forms of industrial espionage; (ii) permitting short and reasonable restraints on the use of technical secrets by professional employees who leave employment; and (iii) permitting reverse engineering, as widely defined, including in software. In brief, such a pro-competitive regime should, in harmony with other forms of protection (e.g. patents, copyrights), promote innovation while safeguarding the public domain.

Trademarks

Trademark protection could be valuable to develop brand recognition

Trademark protection could be particularly valuable in developing countries because of the potential to develop brand recognition for high-quality crafts, clothing, and music. In this respect, it should be seen as a supportive instrument that would facilitate the commercialisation of goods and services. The protection of trademarks (see box 1.1, above) benefits producers, traders and consumers in developed and developing countries alike. The economic justification for trademarks and related protective devices is straightforward. Firms invest resources in their reputation for quality by building in reliable features and guaranteed services. As an easy way of communicating to consumers the quality of their products, a trademark is basically a guarantee of a particular set of quality-related attributes. If it were not protected by the right to exclude others from using the trademark, and by the right to license its use, other firms would quickly expropriate the trademark's value by selling cheaper items under the mark. The original firm would then suffer a lower return on its investments. In turn, there would be little investment in quality differentiation.

An effective deployment and enforcement of trademarks and related marks can help promote product and firm development. While trademarks provide distinctiveness within the marketplace that permit firms to differentiate their products along quality dimensions, and help raise value added, collective marks and certification marks (see box 1.1, above) may be helpful in ensuring quality and economizing on the costs of advertising and branding.

Some sectors of relevance to developing countries

Software

The scope for software development is great in developing countries

Copyright laws are increasingly being utilized as the optimal means of protecting not only computer programs but also original databases (see also chapter 9). For countries that wish to expand the average size and value added of local software development, copyright protection may prove to be especially important. The scope for software development is particularly great in developing countries because of the specific applications that may be made in response to different countries' business environments, languages and technical regulations. There are hundreds or thousands of such firms in such countries as China, Egypt, Indonesia and Lebanon. For example, Indonesia has successfully received sub-contracting from the famous Indian software industry. Local industry benefits by securing protection and enforcement, as in the case of a major South Korean software publisher, Hangul and Computer. The firm managed to overcome the threat of bankruptcy by undertaking a concerted nationwide effort to end piracy of its products *and* to legalize pirated versions which had already been installed.[16]

But, much will depend on the nature of the software work that is being done in developing countries. For instance, one study indicates that although there are alliances between international software companies

and suppliers in India, the Indian software subsidiaries tend to focus on software maintenance rather than on software design and development of new products. [17] Even where the developing country apparently has a thriving software industry, local software products account for less than 25 per cent of local supplier business. In instances where the foreign firm is not ready to share its technology with its local partner, it may appear to be more beneficial, especially for developing countries that are net importers of technology, to foster new industries so as to expand their technology base. This was the route adopted by what are now Taiwan Province of China, Hong Kong (China), and Macao (China), as well as Singapore and Malaysia, not only for software but also for hardware manufacturing.

One underlying problem in this area is the extent to which protection should be accorded. As explained in chapter 1, the basic economic goal of copyright law is to balance an author's incentive to create with the ability to build on prior innovative work in order to maximize social wealth. To give a concrete example, software is expensive to create and companies need protection in order to recoup their investment; on the other hand, companies can save costs by reusing pre-existing works or certain elements of those works. Often, it is the very same firms that want to protect their software which also want to build on pre-existing works. Thus, an efficient usage of copyright law demands that the courts preserve the balance between innovation today and innovation tomorrow. Although this is true of all innovation and creation, it is especially crucial in the area of software production.[18]

While some countries with successful computer technology industries may decide to ban copying outright, copyright law (and for that matter, patent law) should not necessarily deter follow-on competitors from writing independent programs that do not copy an existing program but try to emulate the existing software product so that the "look and feel" (or user interface) of the two software products are essentially the same to the user. There is also the added argument that some elements of the protected pre-existing software are necessary for reuse for the sake of compatibility. Indeed, reusing elements of protected software may be the only way for new competitors to enter and survive within a competitive market.[19]

The copyright approach and the unregistered design rights approach are attractive to short-lived products

Textiles

Developing countries that possess a considerable textile and garment industry may also consider the flexibility offered by the TRIPS provisions by adopting copyright law, rather than registered design law (see above), as a means to protect designs of such goods. The copyright approach and the unregistered design rights approach are attractive to short-lived products, which include not only fashion and textile industries, but also the toy and digital images industries that are fast moving, quickly imitated and in need of immediate and automatic protection. Copyright, with its lower threshold of originality, is advantageous for countries with industries that customarily rely on the prior state of art and which represent incremental, rather than massive, design improvements. Moreover, design law has historically been proven to be cumbersome and expensive, especially in respect of its high thresholds of protection and complex registration procedures.

Music

The scope for music development is great

As in the case of software, the scope for music development is great. There is an abundance of creative musical talent in most developing countries, but relatively few are able to record their compositions and make money from them. The export of recorded music has increased rapidly.[20] According to Andersen, Kozul-Wright Z. and Kozul-Wright R. "imports from the developing countries in the developed market economies have risen fivefold".[21]

The musical industry has reached a certain level of maturity in the developing world. One interesting example is Latin American and Caribbean music, which has a market not only in Latin America, but also in the United States, where there is a large

population of 25 million Spanish-speakers, as well as in Europe. In fact, according to the Recording Industry Association of America, the Latin music industry claimed a 4.9 per cent share of the United States music industry.[22] The Latin music industry is cultural more than territorial, as producers of this music are located in many parts of the hemisphere, particularly Argentina, Brazil, Colombia, Cuba, the Dominican Republic, Mexico, Spain, Venezuela, and the United States. In the United States, Miami is emerging as the capital of Latin music, offering access to capital, appropriate studios, advanced technology and strong copyright laws in favour of producers. The Latin American music industry has strong potential to increase its exports and consolidate its position in foreign markets. However, there are no clear public policies in support of authors, composers and regional producers. The design and implementation of technological restructuring processes, marketing strategies and distribution channels, together with appropriate joint ventures and producers' partnerships, will be important steps to creating a worldwide competitive industry.

Arab music is produced in several countries of Africa and Asia. The production goes mainly to the regional market, but is gaining ground in Europe, especially in France. Currently, there are several Arab music sites on the Internet with increasingly more to offer and growing consumer acceptance in the West. Each Arab country produces and sells its own music and there is no place in the region that could be identified as a centre of such activity.

On the African continent, South Africa is building a small music industry that has connections with the international sales circuits. South African music has a variety of genres based on its cultural diversity and rich heritage. The South African music industry's sales of recordings represent 0.4 per cent of world sales, which is significant for a single country, and those sales grew at a rate of 70 per cent in 1996. According to the Government of South Africa, the growth is due to new legislation that includes local content requirements and deregulation of the radio industry, as well as a growing synergy between local and international musicians.[23] In addition, World Bank programmes supporting music production have played an important role in South Africa and the African continent.[24]

There are a number of impediments in the music sector that need to be addressed

There are a number of impediments in this sector that need to be addressed. First, while a weak copyright system may benefit some nations by reducing the rate of imported intellectual property goods in certain areas such as software and educational products (see chapter 9), such a policy may also undermine the very industries which a developing country may wish to nurture. It has been reported that the local music industries in Mali and South Africa have complained that they suffer heavy losses and damages from piracy and copyright violations.[25] Secondly, even where copyright legislation is in place, collection and distribution of royalties among the key parties (i.e. composers, performers, publishers and the recording companies) is difficult without an efficient, transparent and fully accountable collective management structure. (See also chapter 9 on collective management.)

CHAPTER 3: END NOTES

[1] Schumpeter, JA, "The Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest, and the Business Cycle", New Brunswick: Transaction Publishers, [1934], 1983: 66.

[2] UNCTAD, "Investment and Innovation Policy Review: Ethiopia", Geneva, United Nations Publication GE.02-500021, January 2002: 4.

[3] See UNCTAD, "The TRIPS Agreement and Developing Countries", 1996: 21-22.

[4] The doctrine, which has been adopted in a number of legal jurisdictions (such as the United States and Germany), is intended to ensure that the inventor is able to secure a fair remuneration for unforeseen embodiments that would be obvious to somebody skilled. In essence, it extends the scope of a patent beyond the actual language of the claims to prevent others from reading the patent and inventing around it without doing anything that would not be obvious to a trained technician.

[5] EC Green Paper on the Protection of Utility Models in the Single Market, COM(95) 370 final, Brussels, July 19, 1995:16.

[6] See Heath, C, "Utility Model Law", in Encyclopaedia of Japanese Law from 1868, the Netherlands: Brill Publishing, 2002.

[7] Japan Patent Office, "Patent Filing in Japan", Annual Report 2000.

[8] Mansfield, E, "Intellectual Property Protection, Direct Investment and Technology Transfer: Germany, Japan and the United States", Discussion Paper no. 27 Washington, DC: World Bank 1999. Heath, C, 2002, op cit.

[9] See Evenson, RE and Westphal, LE, "Technological change and technology strategy". UNU/INTECH Working Paper No. 12, UNU/INTECH, Maastricht, 1994; Maskus, KE and McDaniel, C, "Impacts of the Japanese patent system on productivity growth. Center for Economic Analysis, University of Colorado at Boulder Working Paper No. 99-01, 1998; Suthersanen, U, "The economic efficacy of utility model protection: a comparative review of EU, US and Asian policy and practice", in Heath, C and Sanders AK (eds.), *Industrial Property Rights in the Biotech Age – Challenges for Asia*, the Hague, London and Bern: Kluwer Law International, 2003.

[10] Industrial designs protect the aesthetic aspects (shape, texture, pattern and colour) of an object, rather the technical features.

[11] Australian Law Reform Commission, Discussion Paper 58 (Designs), 1994: 330.

[12] See the study prepared by Phillips, in which he shows that despite patent registrations being more expensive, with the shortest duration of protection and the longest grant period, the figures for patent registrations were far higher on an international scale than for design registrations, Phillips, J, "International design protection: who needs it?" European Intellectual Property Review 12, 1993: 431-436.

[13] For example, in the United Kingdom, serious consideration was given to the abolition of the entire registered design system due to its declining use: the average in the 1950s was 10,000 registrations per annum which dropped to less than 5,000 per annum in the mid-1970s. For the period 1980–1992, national statistics indicate the following changes in granted design registrations: Benelux (3,176 to 2,964); Denmark (193 to 1,257); Finland (721 to 862); France (14,769 to 28,481); Germany (75,545 (only Federal Republic) to 53,334 (united Germany)); Italy (1,025 to 1,083); Portugal (563 to 1,771); Spain (2,646 to 3,154); Sweden (2,146 to 1,961); United Kingdom (4,965 to 8,175). Considering the proliferation of product designs in any particular product market, the registration figures show a surprisingly small increase over 12 years (WIPO Industrial Property Statistics, WIPO: Geneva, 1982-1992).

[14] The copyright approach is of particular relevance to the textiles and clothing industries, see the law. For a detailed analysis of registered and unregistered design rights and their relationship with copyright, see the Resource Book, Part 2.4 on industrial designs.

[15] See, UNCTAD, "The TRIPS Agreement and Developing Countries", 1996: 46.

[16] Teran, H, "Intellectual property protection and offshore software development: an analysis of the U.S. software industry" Minnesota Intellectual Property Review 2, 2001: 1, citing statistics from Inter-American Development Bank of 1999.

[17] Siwek, SE and Furchtgott-Roth, HW, International Trade in Computer Software, United States: Greenwood Press Wesport, Co, 1999; Vittal, N, "India's new lever of growth", Computers Today, 15 July 1993.

[18] Dam, K. "Some economic considerations in the intellectual property protection of software", Journal of Legal Studies 321, 1995.

[19] Cohen, JE, "Reverse engineering and the rise of electronic vigilantism: intellectual property implications of 'lock-out' programs". Southern California Law Review 68, 1995: 1091.

[20] For detailed information, see Vivas, D, "Identification and analysis of emerging and existing industries related to TRIPS Agreement in developing countries", Geneva: AITIC, 2001, at http://www.tradeobservatory.org/library/uploadedfiles/Identification_and_Analysis_of_Emerging_and_Ex.htm.

[21] See Andersen, B, Kozul-Wright Z and Kozul-Wright R, "Copyrights, competition and development: the case of the music industry". Geneva: UNCTAD, discussion paper No. 145, 2000.

[22] See Recording Industry Association of America, Midyear Market Report on Latin Music Shipments, 1999. The total United States music market is valued at $ 9 billion.

[23] The South Africa Music Industry, 1996, at: www.dacst.gov/arts.za..

[24] The World Bank reports that it has lent about $300 million to cultural activities. See "Developments in the music industry in Africa", World Bank Report on Social Development, 2001 http://lnweb18.worldbank.org/essd/essd.nsf/All/CA8F5DDF16D1D00485256923006AE103

[25] Business Day (Johannesburg), 21 November 2002; Daily News (Harare), 14 May 2003.