SOUTHERN AFRICA TRUST

Assessment of Regional Lottery and Creation of Fiscal Space to Enable SADC Finance its Regional Programmes

Southern Africa Trust 2016

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Terms of Reference

In accordance with the Terms of Reference (ToR) below, the Consultant presents the attached Draft Report to SADC Secretariat in fulfilment of the Terms of Reference of the Assignment.

TOR 1 - Chapter 2

Review literature on regional lottery, consolidate knowledge on status and potential for boosting alternative sources of income using this option and create fiscal space to finance regional projects. In this regard, the expert is expected to review the trends of regional lottery as a source of revenue for Member States.

TOR 1 - Chapter 3

Review and analyse trends in regional lottery at least over the last 10 years and to the extent possible show how mobilising resources for regional projects could impact the domestic resource mobilisation.

TOR 1 - Chapter 4

Review the regional programmes each member country of SADC has undertaken to finance in the last 10 years using lottery resources and analyse fiscal resources that the country has committed to regional projects. Based on this analysis the expert is expected to establish the %age contribution to regional projects.

TOR 1 - Chapter 5

Recommend overall regional resource mobilization strategy and how this can be adopted in the country's development plans, strategies and options for promoting or incentivising to contribute financial resources to finance SADC regional programmes on a sustainable basis.

Acronyms

CMI	Crisis Management Initiative
ODA	Official Development Assistance
RISDP	Regional Indicative Strategic Development Plan
SADC	Southern African Development Community
SDGs	Sustainable Development Goals
UK	United Kingdom
UN	United Nation
VLT	Video Lottery Terminals

1 Background and Motivation of the Study

1.1 Background

Since its inception, most of the activities of the Southern African Development Community (SADC) have been implemented using resources from SADC Member States and from Development Partners. This model of funding has not worked well for SADC as it has contributed to most of the activities not being implemented. The situation has worsened over time with the increase of regional activities. For instance in the next five years it is expected that SADC will require approximately US$260 million to fund its regional projects (i.e., coordination of activities, studies, capacity building initiatives as well as consensus meetings). The community will also need US$64 billion to fund regional infrastructure projects. From the total amount of US$64.3 billion required to fund SADC regional projects and activities, only US$43.2 million is currently committed to this budget, and this translates to a financing gap of 99.3%. Furthermore, commitments from Member States and from Development Partners indicate a huge disparity, with only 9.2% of regional projects being funded by Member States while the balance of 90.8% is funded by Development Partners. This situation is not sustainable and if meaningful regional integration is to be achieved, dependence on donor resources needs to be reversed urgently so that the bulk of regional activities are funded by SADC Member States using domestic resources.

To address the growing need for resources alluded to in the preceding section, SADC and its Development Partners adopted the Windhoek Declaration in 2006 to guide cooperation between SADC and Development Partners for the achievement of the SADC socio-economic development agenda (as outlined in the Regional Indicative Strategic Development Plan - RISDP) and the overarching objective of poverty eradication.

As part of implementing the Windhoek Declaration, in August 2008, the SADC Council of Ministers directed the SADC Secretariat to explore sustainable alternative sources of income to minimise the inherent risks of relying heavily on the support from Development Partners (Council Decision of August 2008). This directive was reiterated in March 2015 during consideration of the revised RISDP 2015-2020 and Industrialization Strategy, when Council directed that a concept note on alternative sources of income be developed. The note was developed with the assistance of the Southern African Trust and presented to the Committee of Ministers of Finance and Investment at their meeting in Bulawayo, Zimbabwe in August 2015.

The Council of Ministers endorsed the recommendations made by the Committee of Ministers of Finance and Investment. It was recommended, among others, that the Secretariat constitutes a working group comprising experts from Member States to coordinate work on the development of a SADC Regional Resource Mobilisation Framework and in particular to:
conduct detailed research into the various options of alternative sources of income, including consultations with relevant structures in Member States, and benchmarking with relevant organisations such as the African Union and other regional economic communities. The research will also include case studies;

- build consensus on the implementable options for alternative sources of income to support regional integration; and
- develop a comprehensive proposal on the SADC Regional Resource Mobilisation Framework and submit it to the Ministers for consideration and recommendation to Council in August 2016.

To advance the work on alternative sources of income and the development of a Regional Resource Mobilisation Framework that would support and catalyse regional integration through provision of viable options to existing mechanisms for addressing structural, economic and development needs, the SADC Secretariat has decided to carry out a research exercise on lottery. To this end, the on lottery will not only contribute to a better understanding of the potential of this sector in supporting SADC regional integration, but will also ensure that every SADC citizen takes part in funding SADC regional projects through lottery option.

1.2 The Overall Objective of the Study

The main objective of the study is to analyse lottery option as an alternative measure to boost resource mobilization in the SADC region for financing regional programmes.

The specific objectives of this study are to:

- Review how this option can be narrowed down to a feasible proposal for operationalisation;
- Analyse technical and legal feasibility conditions for this option;
- Analyse conditions required for agreement that could be implemented by Member States;
- Analyse the conditions needed to implement such a mechanism;
- Identify bodies that could be involved in scoping the feasibility of such a mechanism; e.g. the need to draw on the cross-border expertise from state lottery bodies;
- Analyse the economic and financial impact of this option on SADC regional initiatives;
- Analyse how the option could be implemented, given lack of a regional policy framework for such an option;
- Analyse the indicative levels of income that Member States can expect to generate from this option;
- Analyse the financial burden of the regional lottery option on the lottery industry (national level); and
- Indicate the process and timeframe for the implementation of such mechanisms.

1.3 Structure of the study

This study is divided into four chapters. Chapter 2 discusses briefly the literature on lottery. This is followed by a review of global or regional lottery and how this might work in Chapter 3. Chapter 4 discusses the revenue potential and ethical issues patterning to lottery. We conclude (Chapter 5) that global version of is viable and complementary in mobilizing more development finance.

2 Brief Literature Review

2.1 Introduction

Lotteries represent one of the oldest and most common forms of gambling around the world with origins dating back at least to ancient Rome and possibly even earlier to the Han Dynasty of China in the second century B.C. A lottery involves the sale by an organizing body, typically the government but also occasionally private businesses or charities, of a ticket giving the possessor a potential monetary reward. Lotteries differ from casinos in that lottery ticket sales generally do not take place at a location specifically set aside for gambling, and modern lotteries are usually operated by governments instead of private firms.

2.2 Why Do People Buy Lotteries?

Lotteries are sold in various forms, the most popular being the numbers game, lotto, and scratch card (Clotfelter and Cook 1991; Clotfelter et al. 1999). The most traditional one is the passive lotteries; the gamblers buy a ticket on which numbers are already printed and a later date is indicated for the drawing. Another form requires the gamblers to select different numbers. In Pick-2, Pick-3, or Pick-4, the gamblers select two-digit, three-digit, or four-digit numbers respectively. In the 6/49 lotto or the pseudo active lottery, the buyers select six two digit numbers from 01 to 49. In scratch cards, the gamblers scratch the surface of the tickets to reveal the award amounts under the coating; if three numbers or symbols are matched the gamblers win a prize. Scratch cards are essentially slot machines on paper.

2.3 Features of Lottery

Lotteries have two distinctive features. The first is an extremely low probability of winning. The 6/49 lotto carries a one in 14 million probability of winning. Lottery's second feature is its low pay-out ratio, or the total amount of money returned to the gamblers. The pay-out ratio for lottery is typically 50%, compared to 74% in bingo, 81% in horseracing, 89% in slot machine, and 98% in blackjack played according to the basic rules (Clotfelter and Cook 1990).

With an extremely low probability of winning and the lowest pay-out ratio, buying lotteries is evidently a losing proposition. Yet, people continue to buy lotteries, and the lotteries' popularity puzzles researchers. A large number of studies have been devoted to answer the question as to why people buy lotteries, and they provide the following tentative answers.

- People do not exercise rationality in lottery gambling;
- Lottery gambling is for Fun; and
- Lotteries are so common that they are not viewed as gambling.

2.4 Theories of Lottery Gambling

Theories of lottery gambling may be divided into theory of judgment under uncertainty, and theory of demand for gambles.

2.4.1 Theory of Judgment under Uncertainty

Theory of judgment under uncertainty explains lottery participation in terms of the gambler's perception of pattern of numbers, and probabilities of winning. Under this theory, lottery gamblers use different heuristics such as representativeness, availability, anchoring and adjustment, and framing of decisions to select their lottery numbers.
An analysis of these irrational beliefs reveals a common basic denominator, the gamblers' inability or unwillingness to apply the principle of independence among events. Gamblers continue to take into account past outcomes before predicting or placing the next bet and one explanation is that the temporal and physical proximity of the gambling outcomes may induce the perception of interdependence (Ladouceur and Walker, 1998).

2.4.2 Theory of Demand for Gambles

The theory of demand for gambles on the other hand is based on the premises that individuals gamble to obtain ''something for nothing'' and that in order to obtain something it is necessary to give up something else. Thus, the gambling motivation involves not only the utility gained from the winnings, but also the utility costs that are saved by not having to work to earn them. The theory suggests that economically vulnerable populations are more likely to engage in recreational gambling and the use of lotteries and gambling taxes to raise government revenues will be disproportionately borne by those who are disadvantaged and vulnerable in the labor market.

2.5 Types of Lottery

There are several types of lottery game that are commonly available throughout the various jurisdictions and they include:
Lotto/numbers games usually involve picking six numbers from a total of either 40 or 49. Six numbers are randomly drawn from the total at weekly or twice-weekly draws. Winners usually match at least three of the six balls drawn with the jackpot reserved for a match of all six numbers. Often a 'bonus' number allows for even higher prizes to be won. As participants have to wait for the draws to take place following the purchase of tickets, this form of gambling has a low event frequency and is known as a non-continuous form of gambling.

Scratchcards are lottery tickets played by scratching or scraping designated areas to reveal information used in determining the card's prize value. Since scratchcards can be bought and used (i.e. the designated areas can be scratched off) immediately, this type of gambling can have a rapid event frequency and can, therefore, be considered as a continuous form of gambling. However, it is acknowledged that for some people scratchcards may be a non-continuous form of gambling, for example tickets are taken home before being played.

Keno involves picking one to ten numbers and deciding how much to bet on a game. A computer then randomly picks 20 numbers out of the 80 possible. Players win when they match numbers with the more numbers matched, the greater the win. In New Zealand, keno draws take place twice a day. However, in some other jurisdictions, keno is played much more frequently, making it a continuous form of gambling. For example, in the Michigan Club Keno (USA), keno is played every five minutes in more than 2,000 bars state-wide.

2.6 Revenue from Lottery

Lottery proceeds are used for different purposes in different jurisdictions. Generally some proportion of revenue is taken by the federal or state government in tax whilst the remainder of the proceeds are distributed to a variety of educational, charitable and/or community causes. This is one reason why lotteries are generally perceived favourably since they are linked with good causes.

2.7 Empirical Research on Lottery

Various frameworks have been used to conduct empirical research on lottery gambling. These works may be divided into those that used psychological variables such as attitudes, norms, motivations, and those that used demographic variables such as gender, age, and education.

2.7.1 Empirical Results

As a result of the various empirical studies, practical knowledge on lottery gambling has increased significantly over the past decade. Recent literature on lottery gambling involving numbers games, lotto, and scratch cards has provided three tentative answers to the question as to why people buy lotteries: some people do not behave in a rational way while gambling on lottery; lottery gambling is for fun; and lotteries are so common they are not viewed as gambling. Lottery gambling theories, classified into one that deals with judgment under uncertainty and another that deals with irrational beliefs, continue to be the theories of choice in lottery gambling research. Theoretical frameworks other than those of cognitive theories, such as social cognitive theory and theory of planned behaviour, have been introduced in lottery gambling research. Dimensions of personality have also been found to relate to lottery gambling.

The demographic profile of lottery gamblers has changed slightly. The relationship between age and lottery participation is no longer in an inverted U-shape. People of all ages play lottery and although the 61? age group has the lowest rate of participation in lottery gambling their mean individual lottery involvement is the highest. Education remains negatively related to lottery gambling. The poor are still the leading patron of the lottery and even the people who were made to feel poor buy lotteries. The legalization of gambling has seen a significant increase of young people gambling, particularly in lotteries, and the best predictor of their lottery gambling is their parents' lottery participation.

Studies from various countries indicate the potential addictiveness of lottery gambling. Young people exhibit the same cognitive biases and become addictive to the lottery as do adults. Whereas the myth portrays a picture of the lottery winners quitting their jobs, recklessly spending the money they have won, and losing all their money, the lottery winners in reality tend to continue working regardless of the amounts they have won and share their money with their children and churches.

3 Literature Review on Lottery and Case Studies

3.1 Introduction

The use of lotteries by national and regional governments to raise funds for public sector and charity projects is now commonplace across the world. In 2001 there were at least 177 public (national and local government) lotteries in operation, with combined sales amounting to some US$126 billion (see Table 1). Given the scale of the revenues raised, it is natural to ask whether lotteries could also be used to provide funds for global development programmes. Proposals to establish a global lottery to fund UN development activities have circulated since at least the early 1970s. In 1994, Erskine Childers and Brian Urquhart proposed that: 'One possibility for income moving more directly to the UN-but still with government licensing in each country would be an annual United Nations Lottery, administered by a special authority under the Secretary-General' (Childers and Urquhart 1994). The idea of a global lottery has recently been given a major impetus by a former President of Finland, Mr Ahtisaari, together with the NGO Crisis Management Initiative (CMI) and the Ministry for Foreign Affairs of Finland.

Table 1: Jurisdictions and the types of gaming

Region / Types of gaming	Africa	North America	Oceana	South America & Caribbean	Europe	Asia & Middle East	Total
No. of jurisdictions	46	70	26	36	51	38	
Betting	19	54	11	10	34	11	139
Casinos	34	27	16	33	34	25	169
Bingo	8	7	n/a	3	8	n/a	26
Gaming machines	4	25	11	4	19	6	69
Lotteries	26	56	17	21	42	15	177
Keno	0	1	8	n/a	n/a	n/a	9
Charitable gaming	0	56	9	n/a	n/a	n/a	65
Interactive gambling	4	31	16	18	30	12	111
Indian gaming	0	21	n/a	n/a	n/a	n/a	21
Card clubs	0	4	n/a	n/a	n/a	n/a	4
Gaming cruises	0	1	1	n/a	n/a	1	3
Illegal gambling	6	6	n/a	1	6	16	35
Community gaming	0	6	1	n/a	n/a	1	1

Source: Global Betting and Gaming Consultants. Available at: www.bettingconsultants

This study evaluate proposals for a global lottery. We also propose a complement to the global lottery, namely a global premium bond, after the UK's long-running premium bond scheme). The return on both a lottery ticket and a premium bond depends on a random prize draw but, unlike a lottery ticket, a buyer of a premium bond does not lose the initial stake: consequently this instrument has the characteristics of a savings product, making it potentially attractive to ethical investors.

3.2 Global Lottery

Discussions of a global lottery yield two basic possibilities. The first is for national lotteries to run national versions of the global lottery game. The second is a single global lottery sold worldwide and run by one organization. The proposal developed by the Crisis Management Initiative, hereafter referred to as the CMI proposal, adopts the first approach (see Ahde, Pentikäinen and Seppänen 2002). As far as we know, the second approach has not been formally proposed by anyone, but it comes up in discussion because of the possibilities now offered by the Internet. In

both versions an agreed international framework is necessary to regulate the lottery organizer(s), transfer the money into a global lottery fund (to be run by the UN or another agency), and distribute the funds to development programmes.

Lottery products consist of numbers games such as Lotto, conducted at regular intervals (usually weekly or bi-weekly in existing lotteries) and instant products such as ticket lotteries ('scratch cards') and video lottery terminals. Numbers games are organizationally more complex and require more infrastructure than instant ticket lotteries. For this reason, the CMI proposals argue for the introduction of instant ticket lotteries first and numbers games at a later stage. Lottery proceeds are divided between winning players, administrative costs and beneficiaries. In US state lotteries the proportions are roughly 40-50 per cent (winners), 15-20 per cent (administration) and 30-45 per cent (beneficiaries) (Clotfelter and Cook 1989: 164-5) and the proportions are roughly similar in European lotteries. A key issue for the global lottery is whether, before transferring any money to a global lottery fund, to share some of the beneficiaries' portion with local beneficiaries. This is a feature of the CMI proposal, which argues that otherwise a global lottery, in competing against national lotteries, may be opposed by local charities and governments. Section 2.3 discusses competition between lotteries.

National legislatures would be subject to lobbying for and against the global lottery and national debates would inevitably (and rightly) raise questions regarding the basic structure of the global lottery as well as its objectives and ethics. This needs to be paralleled by a well-structured and focused international debate.

Before proceeding further we must note several other possibilities. The first is to make development a beneficiary of existing national lotteries. The second is to liberalize national lottery markets in developed countries to permit the marketing of developing country lotteries. The third is for a developing country, or group of countries, to create their own world lottery product, with themselves as the main beneficiaries. The study does not discuss these options in any detail, but if properly organized they could provide further sources of development finance for global or regional projects.

Having set the scene, we now turn to the issues in detail, including our evaluation of the global lottery and its possible modus operandi.

3.3 Lottery operators and their regulation

National lottery operators range from government agencies and state-owned corporations (as in Sweden) to private corporations, licensed and regulated by government (as in the UK). A recent survey of 70 lotteries worldwide found that about a third of the lotteries were government agencies, and two-thirds were private corporations or corporations owned by local or national governments. Accordingly, there is a range of options regarding private versus public providers-whichever version of the global lottery is adopted (the single global lottery or national global lotteries).

The alternative merits of private versus public lottery operation have been extensively debated; older lotteries are often state-run, but newer lotteries tend to be private operators who hold the license until the next round of competitive tendering (the UK, a latecomer to national lotteries, opted for private operation on the grounds that it would raise more revenue than a state-operated lottery). If the global lottery is put out to competitive tender for private operation, then the process must be transparent and well regulated. Competitive tendering captures some of the monopoly rents associated with being a lottery provider, thereby raising the amount generated for beneficiaries (development programmes in the case of the global lottery). However, in countries where private operators hold the market monopoly for a fixed period, a national version of the global lottery could not be introduced until the expiry (or renegotiation) of the license. Current as

well as prospective lottery providers would inevitably lobby to influence the process of introducing a global lottery.

It is vital to run the global lottery efficiently and honestly. This requires a governance structure-to set policy in an overall framework of objectives-as well as regulatory mechanisms. Regulation is by no means straightforward, and there is now a large economics literature on such problems as 'regulatory capture'. Regulating a single global lottery provider, but with a worldwide operation, is obviously a different challenge to regulating numerous, but national, providers of a global lottery. If the single global provider sells the lottery through the Internet, then the issue of regulation becomes bound up with the larger issue of effectively regulating e-commerce (Clarke and Dempsey 2001; O'Connor 2003). If the national variant of the global lottery is chosen, then national lottery operators will fall under the purview of national regulatory authorities, but these vary considerably in their effectiveness. Hence, national regulatory authorities must be overseen by an international authority to ensure that the high standards of a global lottery are met. The World Lottery Association (WLA), a respected international organization with a large membership of national and state lotteries, could play an important role in this regard. Whatever form of international regulatory system is chosen, it must have the ability to impose sanctions and to deregister national global lotteries which fail to meet the required standards. This will necessitate the creation of a suitable legal framework. And international bodies such as the United Nations or for that matter SADC will have to exercise final oversight.

3.4 The market for Lotteries

In a Lotto game, players buy tickets where they choose n numbers from a possible available N numbers and winners receive a share of the prize pool; the design of the game affects the mean, variance and skewness of the prize distribution (Garrett and Sobel 2002). Empirical evidence shows that ticket sales are an increasing function of the skewness of the prize distribution; players display a preference for games with very few large prizes and some small prizes (Creigh-Tyte and Farrell 1998; Walker and Young 2000). This 'long-shot' bias is evident in other types of gambling. Empirical studies show that rollovers (when nobody wins the top prize and the jackpot is added to the jackpot of the next draw) raise sales not only for the draw in question but also for successive draws (Farrell, Morgenroth and Walker 2000). This is referred to as the 'halo' effect in the industry. Most lotteries suffer from 'fatigue'; once the initial excitement of the launch wears off, revenues tend to stagnate or even decline (Creigh-Tyte and Farrell 2003). Periodic redesigns of lotteries for instance reducing the probability of jackpot winners (for example, by raising N) thereby making rollovers more likely-are often used to raise excitement and bolster flagging sales.

Since the expected return is lower than the stake, lottery participation has puzzled economists and non-pecuniary motives have been much emphasized (Farrell and Hartley 1998). When the lottery funds 'good causes', as with the global lottery or the UK national lottery, there is a tendency to focus on altruism as a motive for buyers. It is certainly the case that charity-run lotteries can raise sizeable sums; in the US about US$6 billion is raised in this way, while UK charities derive 8 per cent of their income from their own lotteries (Douglas 1995). But some of this may simply be substitution from other forms of charitable giving; there is no evidence on additionality.

Evidence on whether the use of funds affects the demand for lottery products is decidedly mixed. In the case of the UK national lottery, '… there is no evidence to suggest that play would be sensitive to the distribution of funds even though individuals may express disapproval over it' (Walker and Young 2000). However, the US states which earmark lottery proceeds to public goods (for example, to education) have higher average per capita lottery expenditures than the states which do not. And experimental evidence whereby laboratory participants are asked to choose between lotteries shows that changes in the desirability of the public good significantly affect gaming behaviour, with gaming falling as the desirability of the offered good falls (Morgan and Sefton 2000). The public goods provided by US state lotteries benefit many players personally (for example, as parents). This effect may arise for global lottery players in developing countries and SADC in

particular, but for players in developed countries it may be of little importance unless development education convinces them that the global lottery will fund global public goods that benefit them personally.

In summary, it appears that the global lottery will face the same design issues as existing lotteries if the objective is to maximize revenues, i.e. skew the prize structure towards a few large prizes and encourage rollovers to combat lottery fatigue. Altruism and the public goods funded by the global lottery may be less important as non-pecuniary determinants of demand than the lottery's entertainment relative to other lotteries and other forms of gaming. However, there is another twist in the argument that we now turn to.

3.5 Competition between the global Lottery and national Lotteries

One of the most critical problem facing introduction of global or regional lottery is a concern that the global lottery may take too much market share from existing national lotteries, leading to local opposition by national charities and governments. Such opposition can certainly be vocal; for instance in the UK, national charities have lobbied hard on the national lottery, fearing its effects on their own charity-lotteries as well as donations (UK Parliament 2001). And a global lottery could take some revenues away from private gambling operators; these might be considered 'fair game' especially when they are unregulated and untaxed Internet operations (see next section) but gambling taxes provide substantial revenues for many state governments in Australia and the United States. Private commercial operators will therefore have powerful political friends.

How competitive would a global lottery be? The review of the study of non-pecuniary demand factors in the last section suggested that altruism/global goods characteristics may give the global lottery an edge for some buyers. But it is probably unwise to rely on these dimensions. We cannot conclude anything about its entertainment value relative to existing lotteries at this stage.

This leaves the global lottery's pecuniary characteristics. Recall that the mean, variance and skewness of the prize distribution all affect lottery demand, with the empirical evidence showing that ticket buyers prefer higher mean, lower variance and skewness towards very large prizes (Clotfelter and Cook 1989; Walker and Young 2000). So for buyers the global lottery may be less/more attractive than competing lotteries along some or all of these moments of the distribution. Formally, the global lottery will only be unambiguously superior to a national lottery if it stochastically dominates the latter; that is F(X), the probability of winning no more than X, is less for all X.

The most straightforward way to do this is to set a maximum prize below that of the national lottery (in the case of national versions of the global lottery) or below that of any national lottery (in the case of a single global lottery) and reduce the chances of a rollover by lowering the numbers (n) required to win the jackpot and by lowering the number of available numbers to choose from (N). Since all the evidence shows that players prefer skewness in the prize distribution, this implies that the global lottery will not raise as much money as it could with very large prizes and may be subject to faster lottery fatigue (given the lower occurrence of rollovers). Moreover, in diluting its ability to raise development funds, such action reduces the incentive of development altruists to participate.

One extra twist should be noted when the global lottery is run through national versions rather a single lottery. When the dominance of the global lottery is eliminated, national versions of the global lottery will exhibit different distributions of the prize pot since the distributions of national lotteries show cross-country variation. If the differences in the distributions of national global lotteries are significantly large, and the transactions costs of cross-border purchase are low, then buyers may prefer to purchase another country's version of the global lottery. There already exist cross-border 'grey markets' in national lotteries, despite national legal prohibitions (for example, intermediaries sell UK national lottery tickets at a premium in Hong Kong). Hence, national lotteries could lose revenues even if their own national global lottery is designed to give an equivalent return.

A single global lottery would eliminate the international grey market arising from multiple national versions of the global lottery and the rents to intermediaries associated with the latter would be transferred to the global lottery operator, the prize winners and the beneficiaries. If the single global lottery were run through the Internet, it would almost certainly have lower administrative costs than the aggregate of the administrative costs of nationally-run global lotteries. Its costs would be further reduced if it were run on a not-for-profit basis rather than by a commercial lottery operator. These factors again give the global lottery a competitive edge.

Any opposition to the global lottery may be reduced if the formula for distributing the resulting global lottery funds together with their use are perceived to be in national interests, particularly when global concerns-regarding the environment, health and security-are seen as bearing on national interests (section 3.6 below discusses the formula). Moreover, if a single global lottery had jackpots sufficiently large to attract pure gamblers, then it might take substantial market shares away from private commercial gambling (which, as we noted above, is a large market); this would then permit generous 'compensation' to national causes that lose market share to the global lottery.

3.6 The challenge posed by Internet gaming

The first proposals for a global lottery arose before the Internet age. The gaming industry is now being transformed by the IT revolution, which challenges traditional forms of gaming including lotteries (the Internet reduces the transactions costs of gaming, especially across borders, and it offers new gaming products).

A report undertaken for the UK Home Office by the Gaming Board for Great Britain estimates that Internet gambling contributes some US$32 billion to an annual global gambling turnover of US$1 trillion (a market share of about 3.2 per cent); online lotteries account for US$7.5 billion of the US$32 billion (Gaming Board for Great Britain 2003, data for 2001). Most of the online lotteries are run by private operators for private profit, although charities are now moving into this area. The growth of online lotteries (and online gambling) is not confined to developed countries. Indian states such as Maharashtra and Sikkim now operate competing online lotteries using public computer terminals and private companies compete vigorously for the business of setting up and running India's online state lotteries (BBC 2002a).

Table 2 of Annex 1 shows the wide range of countries which provide a base for online gambling. Much of the online gambling is lightly regulated, if at all, and private operators tend to base themselves in jurisdictions with the least regulation, for example, small islands in the Caribbean but also traditional tax havens such as Gibraltar and the British Channel islands. Sophisticated Internet casinos targeted to the large Asian and Chinese markets operate from the Caribbean. Case law is still being created in the area of Internet gaming as new operators seek to exploit loopholes in existing national laws, or circumvent those laws entirely. The growth of the market has been slowed by the refusal of some credit card companies to process Internet bets. While this threatens some existing operators, the Internet market's long-term prospects remain strong since major (licensed) casinos are keen to win market share and are influencing US legislation to this effect-and they have political allies in states keen to expand their revenues from gambling taxes (Wall Street Journal 2003).

In summary, the global lottery will enter a crowded market-place in many countries. In developed countries gamblers can choose not only between a variety of lottery products but also between an increasingly large menu of gaming options, reflecting the growth of Internet gambling as well as the recent liberalization of major gaming markets such as the UK which show the gambling products available across countries. Asia's high-growth gambling markets are now well-served by both domestic and Internet gaming products, many of which are provided by large commercial operators with a sophisticated knowledge of the market and the new technologies. A global lottery would face much less competition in the smaller countries of Sub-Saharan Africa, but this is not a

large market. These are all factors to keep in mind as we now turn to the revenue-raising potential of the global lottery.

4 Potential Revenue and Ethical Issues

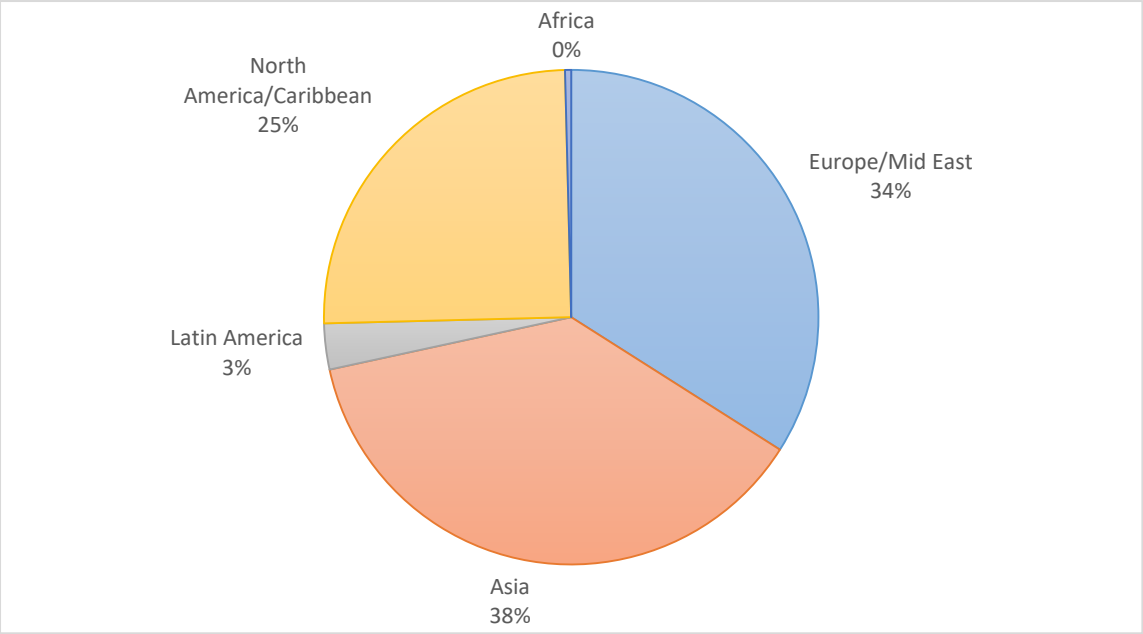
4.1 Introduction

In this chapter the study provides a short summary of revenue potential from global lottery. The global lottery will raise money from (i) people who substitute in from other forms of gambling (including national lotteries) or are so motivated that they increase their total gambling expenditures and (ii) 'new players': people ('development altruists') who have not otherwise participated in lotteries as well as those who have not had access to lotteries before (the case in some developing countries).

4.2 Revenue potential

Any assessment of the likely revenue-raising potential of the global lottery must be highly speculative. Figure 1 provides information on world lottery sales by region. The total size of world lottery market sales was US$292.7 billion in 2014. The largest market is Asia (37.6%), followed by Europe/Middle East (34%), and North America and Caribbean (25%) and then Latin America and Africa at 3% and 0.4% respectively.

Figure 1: 2014 (Adjusted) Global Lottery Sales by Region



Africa which ranked lowest in 2014, reported total sales of USD 1.3 billion across the four game categories of draw-based games, instant tickets, sports games (pari-mutuel), and sports games (fixed odds) in 2014, or 0.4% of total sales of USD 269.2 billion. Across the four game categories, draw-based games accounted for 61.2% of sales; instant games, 5.7% of sales; and sports games (pari-mutuel and fixed odds) 33.1% of sales. Two African WLA Lottery Members reported other sales in the "All other sales (VLTs, etc.)" category; sales in this category totalled USD 6.2 million.

On the contrary, Asia/The Pacific which recorded the highest number of sales of lottery reported total sales of USD 105.7 billion across the four game categories of draw-based games, instant tickets, sports games (pari-mutuel), and sports games (fixed odds). This is equivalent to 39.3% of total sales of USD 269.2 billion. Across the four game categories, draw-based games accounted for 60.2% of

sales; instant games, 6.4% of sales; and sports games (pari-mutuel and fixed odds) 33.4% of sales. Three World Lottery Association Lottery Members from Asia/The Pacific reported other sales in the "All other sales (VLTs, etc.)" category; sales in this category totalled USD 6.2 billion.

From these data we can make two points regarding revenue-raising potential. First, the global lottery will generate most of its funds from the developing and developed countries. Second, these large markets are subject to intense and growing competition in the provision of gambling products. Take, for example, the United States, which is the third largest market. In 1975 there were thirteen US state lotteries but by 1999 there were 37, and the 1990s saw the creation of hundreds of legal casinos as fiscal pressures on state governments, and a political reluctance to tax, drove the relaxation of previously tightly-controlled markets (Shiller, 2000). Similar forces are evident in Australia, India and South Africa.

If the global lottery took 10 per cent of the 2014 global lottery gross sales (US$292.7 billion) then it would raise US$29.3 billion annually. This compares to total official development assistance (ODA) of US$135.2 billion in 2014, (OECD, 2014).

To illustrate the potential revenue for SADC, the study uses readily available data for 2002 from Global Betting and Gambling Consultants Report. To this end Table 2 shows data of turn over from twelve countries.

Table 2: Gross Gambling Turnover by Gambling Mode- SADC Countries 2002

Country	Casino		Lottery		Others		Total	
	US$ million	%	US$ million	%	US$ million	%	US$ million	%
South Africa	5808.6	84.4	295.95	88.6	746.7	49.4	6851.25	78.5
Botswana	164.7	2.4	0		0	0	164.7	1.9
DR Congo	9	0.1	17.55	5.3	0	0	26.55	0.3
Lesotho	18.3	0.3	0		0	0	18.3	0.2
Mauritius	477.9	6.9	15.3	4.6	653.1	43.2	1146.6	13.1
Mozambique	4.95	0.1	1.95	0.6	0	0	6.75	0.1
Namibia	52.95	0.8	0		20.4	1.3	73.35	0.8
Seychelles	132.75	1.9	0		0		132.75	1.5
Swaziland	70.8	1.0	0.75	0.2	0		71.55	0.8
Tanzania	17.55	0.3	0.3	0.1	0		17.85	0.2
Zambia	29.55	0.4	1.5	0.4	20.7	1.4	51.75	0.6
Zimbabwe	97.5	1.4	0.6	0.2	71.85	4.7	169.95	1.9
Total	6884.55	100	333.9	100	1512.75	100	8731.05	100

Source: Global Betting and Gambling Consultants Report, 2002

As shown in Table 2, assuming that SADC had to take 0.1% of the total gross gambling turnover value of US$8,731.05 million, this could have translated into roughly US873.1 million as at December 2002. Similarly if 0.1% was to be applied to lottery games only, SADC could still have managed to US$33.4 million per annum. Considering that this is fourteen years ago, the revenue figures today could be significantly higher than those reported in 2002, hence clearly demonstrating the potential of SADC mobilising resources from this option.

4.3 Cross-country equity

As seen section 2 Table 1 countries differ substantially in the potential national market for the lottery. The CMI proposal is for a portion of the national global lottery to be distributed within the country concerned, in order to offset any negative impact on the revenue raised through existing lotteries or the causes they fund.

How should that portion be determined? Should the portion retained by the country be the same across all countries or should it vary according to the level of development (weights based on per capita income) or some form of poverty weighting (using weights derived from UNDP's Human Development Index for instance?). This issue applies not just to the global lottery as an instrument of innovative finance for developing countries, but also to other instruments such as global taxation (and it is part and parcel of any discussion on regional fiscal arrangements such as the European Union's system of contributions and rebates).

This study does not discuss in detail this issue here, but a simple example highlights the problem. Mauritius has a gross national income of US$10,017 per capita and a population of over 35 billion; Seychelles has roughly the same per capita income (US$16,922) and a population of only 1.2 million and 90 thousand respectively (SADC 2016). For simplicity, assume that per capita annual expenditure on the global lottery is one dollar in each country, so that Mauritius sells US$ 2 million of tickets per year and Seychelles sells US$ 90 thousand. If each country transfers the same percentage to the SADC Regional development fund, then Mauritius makes a much larger absolute transfer into the fund than Seychelles. Although large countries will also retain higher absolute amounts for their own causes (including poverty reduction), they may still balk at the scale of their transfers to the SADC fund and argue for higher percentage retentions for their national causes. There may be a case for a sliding scale, with countries with a Gross National Income below US$X keeping 100 per cent, then with more than X keeping a fraction that falls to some defined level (say 80 per cent).

4.4 Case Studies on Distributional and welfare effects of Lottery

Empirical evidence for developed countries shows that low-income groups spend a larger proportion of their income on lotteries than higher income groups. This implies that lotteries are a regressive way of financing public spending, an aspect that has been much criticised. For each dollar bet, the average US state lottery pays 55 cents in prizes, spends 12 cents on retailer commissions and other operating costs, which leaves 33 cents for the state (Clotfelter 2000). Clotfelter and Cook (1989) call this an 'implicit tax' because it has the same effect as a tax on lottery expenditures. Clotfelter (2000) concludes that 'if it were an excise tax, it would amount to a 50 per cent tax on the cost of operating a lottery (67 cents), making it much higher than the excise taxes we place on alcohol or tobacco products'.

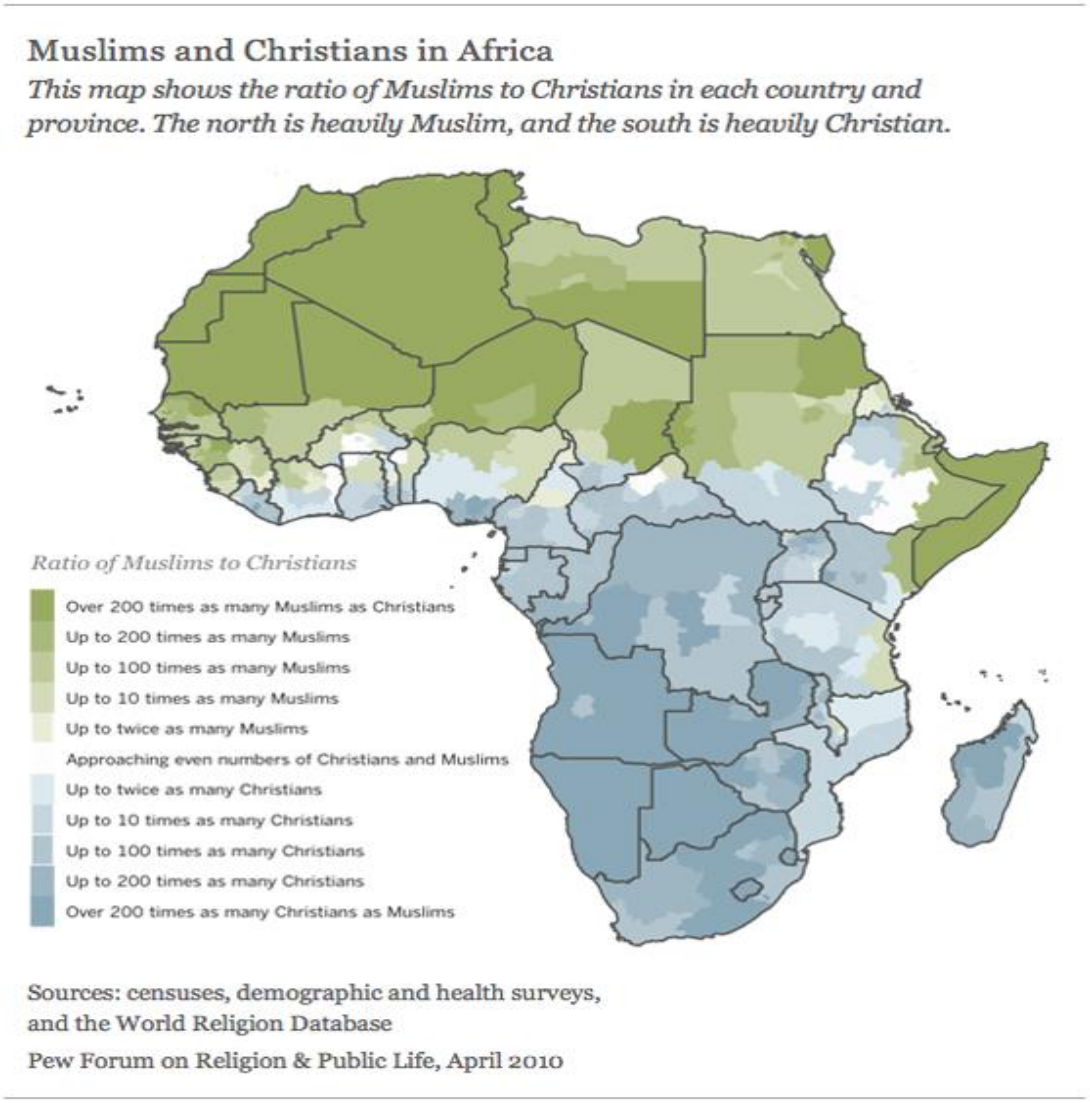
UK evidence shows that higher income groups are more likely to play in rollover weeks when the expected return is higher, presumably because their time carries a higher opportunity cost or they have many other forms of entertainment (Farrell and Walker 1997). Hence, lottery design affects the regressivity of the tax, and if the competitiveness of the global lottery relative to national lotteries is reduced by lowering the mean prize and the probability of rollovers (as discussed in section 2) then the global lottery tax is likely to be more regressive than existing national and state lotteries.

Compared to ODA financed through an income tax, the global lottery is regressive in its effect on the distribution of income in developed countries. But compared to nothing (i.e. lower development funding in the lottery's absence), it is progressive in terms of the world income distribution-provided that the additional development programmes are pro-poor in design and impact. When the lottery finances programmes with positive externalities for everyone (for example, efforts to preserve environmental capital and combat global warming), then the poor benefit along with the non-poor, and these benefits increase when the 'global bad' is especially acute for the poor (for example, flooding in Bangladesh due to global environmental change). Finally, when the poor themselves buy lottery tickets (as many do in South Asia) then as a group the expenditure effect is negative (recall that the expected return in buying a lottery ticket is less than the stake) but some individuals, the winners, may be lifted out of poverty. In summary, the lottery's welfare and distributional effects can be viewed from several different perspectives, some of them more favourable than others.

4.5 Ethical issues

While many countries run lotteries, there are many critics. Some religious groups discourage their members from buying lottery tickets, but practices vary widely. Muslim countries vary in their tolerance for lotteries: Senegal and Mali have active state lotteries, whereas Djibouti does not (see Figure 1 and appendix Table 2 for country-level data on the prevalence of different types of gaming). The Catholic religion does not expressly forbid lotteries or gambling, provided that the gambler acts freely and without unjust compulsion. Many church organizations raise funds from their own lotteries, but gambling is not universally tolerated across all Christian groups. This is a case in point for most SADC countries which have more Christian population than Muslims.

Figure 2: Religions Trends in Africa



Many people welcome the opportunity to participate in lotteries, judging by the numbers who buy tickets. But equally, gambling addiction can result in personal ruin; of the 125 million Americans who gambled in 1998, some 7.5 million were estimated to be 'problem gamblers' (Shiller, 2000 citing data collected by the National Gambling Impact Study Commission). Moreover, gambling addiction appears to be more prevalent in men than women, with catastrophic effects on the household when, as in many countries, men control most of the households' cash income by virtue of their lotteries on consumer expenditures).

So in 'social lotteries', there is always an uneasy tension between the desire to raise money to do good, and the recognition that one is providing a potentially addictive route to ruin, even if only for a small minority of people. For this reason some US state lotteries set aside funds for projects to reduce gambling addiction and some states impose strict controls on advertising (Clotfelter 2000).

The evidence on problem gambling in lotteries is mixed. Griffiths and Wood (1999) review the European research on lottery gambling addiction. The most addictive forms of gambling are those that give purchasers the chance to gamble continuously (thus slot machines are the most addictive). This also makes scratch cards more of a problem than weekly or bi-weekly lotteries.

Finally, there is some concern over the potentially negative effects of very large prizes on winners (for example, in press reports regarding family breakdown following lottery wins), leading to the argument that small prizes may be preferable. However, this creates a problem for maximizing lottery revenues given the positive effect of very large prizes on demand. Prizes could be paid in annuities (an option that is offered to winners in the United States), which may reduce such negative social impact.

Despite these problems, many observers might reasonably argue that the ethical case for a global lottery is strong and, indeed, that it is stronger than the case for many existing national lotteries (where national taxation offers more possibilities for meeting social goals if the ethical case for lotteries is in doubt). That is, given the extent of current global problems as well the scale of world poverty and the urgent need to eradicate it- recently reaffirmed by the adoption of the Sustainable Development Goals (SDGs), SADC Revised RSDP 2015-2020, and the costed action plan of the SADC Industrialisation Strategy and Roadmap 2015-2063 'exceptional' financing measures are required above and beyond raising foreign aid. And the ethical case for the global lottery will strengthen, as the funds it raises deliver tangible progress in meeting the SADC development goals by 2065.

5 Conclusion and recommendations

5.1 Conclusion

This study has discussed the present proposals for a global lottery which is similar to the proposal being proposed for SADC. This has potential to raising finance for development programmes, of benefit to both the region and to poor people. The lottery as reviewed in this study could have strong contribute to resources for supporting regional projects, an important consideration in these days of 'aid and Member States fatigue', when the case for regional inter-governmental organisations are supposed to help reduce poverty through development of regional projects. But for this reason, the option must meet the highest possible ethical standards.

The revolution in global communication technologies is fundamentally changing the market for gaming. It is now possible to conceive of running the global or regional lottery from a single organization via the Internet. This would have significantly lower administrative costs than selling national versions of the global lottery through national lottery agencies; a single authority would be easier to regulate than many national authorities and it would have potentially greater reach than national schemes. But for these reasons it may face more political opposition than nationally-run versions of the global lottery if it is seen to take money from national charities.

The market for gambling is also being altered by liberalization in many countries, which is in turn driven by the fiscal needs of central and local governments (including the increasing importance of gambling taxes given political opposition to other forms of taxation), the liberalization of cross-border transactions in services and more permissive social attitudes to gambling. To this end a global or regional lottery will have to compete in an increasingly vigorous market.

5.2 Recommendation

The study recommends that it is feasible to conceive a regional lottery that would yield substantial amount of resources. Furthermore, in order to reduce the costs, it is proposed that SADC use internet framework to run the lottery. Internet framework will not only reduce the costs but ensure that the lottery is run efficiently.

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7. Annex

Table 2: Types of betting and gaming in Africa

Country	Betting	Casinos	Bingo	Gaming machines	Lotteries	Keno	Charitable gaming	Card clubs	Interactive gambling	Indian gaming	Gaming cruises	Illegal gambling	Community gaming
Algeria	x				x								
Anjouan									x				
Benin		x			x								
Botswana		x											
Burkina Faso					x								
Burundi					x								
Cameroon	x	x			x								
Côte d'Ivoire		x			x								
Congo, R.D.		x			x								
Ethiopia		x			x								
Gabon		x											
Gambia		x			x								
Ghana		x			x								
Kenya		x			x								
Lesotho		x											
Liberia									x				
Madagascar		x			x								
Mali					x								
Mauritius	x	x			x				x				
Morocco	x	x			x								
Mozambique		x			x								
Namibia		x		x									
Niger		x			x								

Nigeria		x			x								
Ruanda		x			x								
Senegal		x			x								
Seychelles		x											
Sierra Leone		x	x		x								
South Africa	x	x	x	x	x				x			x	
Swaziland	x												
Tanzania	x				x								
Togo	x				x								
Tunisia	x	x			x								
Uganda		x											
Zambia	x												
Zimbabwe		x			x								