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Recent Developments in the Fight against HIV/AIDS with a Focus on Southern Africa and International Intellectual Property Law

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List of Abbreviations and Acronyms

AAI	Accelerated Access Initiative
ABC	Abstain, Be faithful, Condomize
ACHAP	The African Comprehensive HIV/AIDS Partnerships
AIDS	Acquired Immune Deficiency Syndrome
ANC	African National Congress
ART	Antiretroviral treatment
ARV	Antiretrovirals
AVAC	AIDS Vaccine Advocacy Coalition
AZT	Zidovudine
BOTUSA	Collaboration of the Botswana government and the USA
CADRE	Centre for AIDS Development, Research and Evaluation
CDC	Centers for Disease Control and Prevention
CIA	Central Intelligence Agency
DAC	Development Assistance Committee
DNA	Deoxyribonucleic Acid
EuroVac	European Vaccine Effort Against HIV/AIDS
GCM	Global Campaign for Microbicides
GDP	Gross Domestic Product
GSK	GlaxoSmithKline
HAART	Highly active antiretroviral therapy
HEPs	HIV exposed, persistently seronegative
HIV	Human Immunodeficiency Virus
IAVI	International AIDS Vaccine Initiative
IPS	Intellectual Property Rights
LTNPs	Long-term non-progressors
MSF	Médecins Sans Frontières
MTCTP	Mother-to-child transmission prevention
NAC	National AIDS Council (Botswana)
NACA	National AIDS Co-ordinating Agency (Botswana)
NACOSA	National AIDS Committee of South Africa
NGO	Non-governmental organization
NIH	National Institute of Health

NP	National Party
ODA	Net Official Development Assistance
OECD	Organization for Economy and Coordination Development
PEPFAR	United States President's Emergency Plan for AIDS Relief
RNA	Ribonucleic Acid
SIV	Simian immunodeficiency virus
STI	Sexually Transmitted Infections
TAC	Treatment Action Campaign
TB	Tuberculosis
TCB	Teacher Capacity Building Project
TRIPS	Trade Related Aspects of Intellectual Property Rights
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNDP	United Nations Development Programme
VCT	Voluntary Counselling of Testing
WHO	World Health Organization
WTO	World Trade Organization

1. Introduction

In his essay *AIDS, Africa and Indifference: A Confession*, Joel Pauls Wohlgemut called HIV/AIDS "a public health disaster of epic proportions."[1] The epidemic is neither over, nor is it successfully being fought, and at the time of this writing, it appears likely to grow and accompany us into the next decades – or into the next century. These apparent truths add a threatening and explosive relevance to the problem of the virus, which has reached an enormous grade of complexity.

Writing solely about HIV/AIDS is not possible. The disease, its consequences and origins are never simple, monocausal or isolated. Every epidemic is multifarious and interdependent in its roots, analyses and solutions. Dealing with a topic such as HIV/AIDS automatically means dealing with a variety of different fields and complexes. On the socio-cultural level, factors such as sexual culture, religious influence, tradition, poverty, drug use, drug sale and homosexuality often impinge on the epidemic's course. On a rather political level, economy, governmental influence and commitment, political upheavals and conflict and also the influence of non-governmental organizations and campaigns have a considerable effect on the development of the disease. On a more solution-oriented basis, prevention efficacy and treatment access, financing and donations, the pharmaceutical industry and the shape of health care systems are relevant to the epidemic's spread and can also decide over death or survival. To further complicate and increase the already overwhelming complexity of HIV/AIDS, all these factors not only impinge on the epidemic, but the epidemic, in turn, impinges back on them.

Various academic fields are included and omnipresent in a holistic debate: political and social science, law, economics, biology (including virology and epidemiology) as well as educational science and psychology, when referring to prevention and high-risk behaviour. To acknowledge the pandemic in its entirety, it is unavoidable to touch upon these various fields. This dynamic interplay is interesting and often overwhelming. But it is also challenging, if not discouraging, to realize what marathon efforts are necessary to rectify the origins, prerequisites and current conditions that fuel the dying. It is already clear and settled that despite certain improvements and steps forward, mankind will not be able to throw off a

[1] Cf. Joel Pauls Wohlgemut, "AIDS, Africa and Indifference: A Confession," *Canadian Medical Association Journal*, Vol. 167, Sept. 2002, 485, http://www.cmaj.ca/cgi/content/full/167/5/485 (accessed 20 Dec. 2006).

virus that is currently living in 40 million human bodies. Hence, it might have sounded awkwardly fatalistic and desperate when Dr. Peter Piot, executive director of UNAIDS, said on the XVI International AIDS Conference in Toronto in August 2006 that we have to plan the next 25 years with HIV/AIDS.[2] Only on second thought, it slowly dawned that adhoc solutions would only impede what long-term solutions really can achieve, and that halting the pandemic would be a great success, reversing it a giant stride, but eradicating it is impossible and wishful thinking.

Chapter Two gives a survey of significant and particular developments in the global fight against the epidemic, which will probably shape the future course of the disease intensively. It includes scientific background and challenges, the financing of the fight against the disease and the current and possible future shape of the evolving epidemics in Eastern Europe and sub-Saharan Africa. The epidemics in these two regions are as different as the regions themselves and thus show how kaleidoscopic HIV/AIDS reflects society and culture.

In contrast to the following chapters, this chapter aims at providing an overall picture of relevant and meaningful events and developments rather than an in-depth analysis of more peculiar issues. The chapter attempts to achieve the balance between focusing on various aspects of the epidemic in order to create, or at least hint at, a holistic picture while avoiding the danger of drifting to superficial, insignificant analyses. Chapter Two also focuses on topics such as Southern Africa or the mechanisms of pharmaceutical companies, which are further pursued in the following chapters, but in complete different shape. Thus, it provides examinations of certain issues while simultaneously providing prerequisites, which will be helpful and useful for the comprehension of the following chapters.

Chapter Three focuses on the Southern African country Botswana, which serves as a positive example. The focus is put on effective solutions and how they were achieved. It is analyzed by which means Botswana succeeded in setting up a pioneering and exemplary treatment programme and, thus, the vital ingredients of a successful response are shown. In contrast, South Africa (Chapter Four) serves more as a negative and also deterring example, particularly in the sense of health care, governmental commitment and action. Hence, the main focus is put on scrutinizing

[2] Cf. UNAIDS, "The Global Response", Speech, Peter Piot, XVI International AIDS Conference: August 13-18, 2006. 25 Years of Reflecting AIDS - Reflecting Back and Looking Forward, http://www.kaisernetwork.org/health_cast/player.cfm?id=2701&play=4#clip_4 (accessed 20 Dec. 2006)

conditions, explanations and prerequisites for a severe epidemic and an insufficient response.

The contradictory country examples are consciously chosen and follow different approaches. The solution-based approach of the Botswana chapter intentionally contrasts the cause-oriented approach of the South Africa chapter, thus intensifying the effect and making use of a greater range of possible approaches. As explained above, the respective current situations and past events of the two countries made a decision as how to allocate the approaches fairly easy.

The chapter on *International Intellectual Property Law* is predominantly a chapter on treatment. It examines who receives treatment and where and why and who does not receive treatment and where and why in the face of patents, prices and economic interests. It also sheds a light on the complex that not everyone is losing in the fight against HIV/AIDS. Prevention, research, production and delivery of antiretroviral drugs have long become an almost independent branch of industry, the collapse of which would be massive. The chapter examines the economics behind the disease, scrutinizes the barriers to increased treatment access and sketches the path that led to an amendment of International Property Rights (IPS).

As usual, the complexity of certain issues scrutinized in this paper turned out to be, admittedly, overwhelming. The fact that this complexity would partly not allow for any other approach than an extensive, in-depth interdisciplinary one, makes it unavoidable that certain issues must remain merely touched upon – considering their potential of analysis. With an issue like HIV/AIDS and the vast amount of literature and information, this appears logical and expected. Nevertheless, it might be useful to keep in mind that the end of a chapter not simultaneously means the end of a topic. The restrictions to the form and length of this paper do not necessarily reflect the intensity of examination the author would have preferred.

2. An Overview of the Current State of the Epidemic

2.1 Forward

The 25-year-old history of HIV/AIDS is a story of setbacks, drama and trauma – an often never-ending downward spiral with lots of backlashes and a host of incessant bad news, but rare progress, mentionable success and legitimate reason of hope. Thus, every step in the right direction is vital – not only to fight the disease, but also to provide activists and everyone involved with the necessary ray of hope and stamina to continue a fight against a virus that is not invincible. The progress within the field of access to antiretroviral treatment can be counted among these vital improvements, which effectively demonstrate that AIDS-related deaths are neither fate nor destiny, but avoidable.

When writing about progress and the impetus behind its development, there is no getting around the Special Session of the United Nations General Assembly on HIV/AIDS in June 2001. Frequently considered "a landmark in the global efforts to respond to the AIDS crisis",[3] the Declaration of Commitment on HIV/AIDS was accepted by leaders from 189 Member States for the first time in the history of the epidemic.[4] The commitment to stronger prevention, treatment, care, support and leadership resulted in unprecedented global action, advocacy by civil society and major contribution to monitoring processes on all levels.[5] The fact that by March 2006, 126 countries submitted reports on their respective current AIDS situation can undoubtedly be traced back to the Special Session and is of inestimable value for sensible strategic planning and allocation of donations and resources.[6] Moreover, this was the first time that civil society actively participated in collecting, analyzing and reviewing these data.[7]

Further progress to be elaborated on here is the increasing hope and scientific confidence in developing an effective and widely applicable microbicide. Apart from that, an increase in donations will be dealt with. This increase, however, is not sufficient and therefore often described as a disappointment. Nevertheless, it remains considerable and an exemplary sign of global participation.

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[3] UNAIDS, 2006 Report on the Global AIDS Epidemic (Geneva, 2006) 52.
[4] Cf. ibid. 52.
[5] Cf. ibid. 52.
[6] Cf. ibid. 52.
[7] Cf. ibid. 53.

2.1.1 The Expansion of Access to Antiretroviral Treatment

Recent progress in the field of treatment and care is astounding in many countries. The expansion of access to antiretroviral therapy is undoubtedly of inestimable value for activists, governments, donators, non-governmental organizations (NGOs) and people living with HIV/AIDS in many different respects. This increased treatment access not only succeeded in averting 250 000 – 350 000 deaths worldwide in 2005,[8] it also provided directly and indirectly involved people with desperately needed hope and stamina to continue stressing and fighting the AIDS pandemic. Moreover, improvements in some very resource-constrained settings enabled to serve as role models and perfect examples that fighting this deadly disease is possible. Especially South Africa – the most crisis-torn AIDS region in the world – could finally succeed in considerably scaling up treatment significantly: the number of people on antiretroviral drugs doubled in 2005 alone.[9] Even more surprisingly, the country managed to increase the number of people receiving antiretrovirals (ARVs) "from fewer than 5000 at the beginning of 2004 to roughly 190 000 by the end of 2005."[10] Yet, what appears remarkable about this also appears frightening. The question how a country with the highest population of people living with HIV/AIDS could afford and dare to wait for so long to finally act and put an end to this state of paralysis will be scrutinized in Chapter Four.

Even in economically deprived countries such as Kenya, 200 sites were installed to provide ARVs, and Rwanda managed to deliver antiretroviral drugs to more than 18 000 people in 2005 with further expansion and an eightfold increase in sites compared with 2003.[11] Uganda could induce 50% coverage of treatment, while many other sub-Saharan countries remain to fall behind with levels below 10%.[12] Botswana, as an exemplary sub-Saharan AIDS-ravaged country, has managed to put approximately 50 100 people on treatment – bearing in mind that the country's population is less than 2 million makes this achievement even more a giant stride. Equally important, Botswana's adherence to treatment is reported to be among the

[8] Cf. ibid. 153.
[9] Cf. ibid. 151.
[10] Ibid. 151-152.
[11] Cf. ibid. 151-152.
[12] Cf. ibid. 152.

highest in the world (85-90%).[13] Yet, the highest coverage of antiretroviral therapies in resource poor settings can currently be found in Latin America and the Caribbean. The number of people on treatment here totalled 315 000 at the end of 2005, which makes up a percentage of 68%.[14]

Of course, it is absolutely essential to know how many out of the 40 million people living with HIV/AIDS worldwide are actually in need of antiretroviral therapy in order to keep a sense of proportion. On the global scale, it is reported that seven million people need antiretroviral drugs.[15] Out of these seven million people, 1.3 million are actually receiving them, which leave 80% untreated.[16] Knowing that four out of five people – at least some 6.7 million people – remain without therapy makes it hard to grasp that the global AIDS community considered this a sterling success. Yet, a fivefold increase between 2001 – with barely 240 000 people on treatment – and 2005, makes it comprehensible that UNAIDS resume that "the world has embarked on an unprecedented quest to move towards universal access to HIV care and treatment."[17] Obviously, a number of three million people on ARVs by 2005 – as enthusiastically set up in the '3 by 5' initiative in 2003 – has not been reached. Notwithstanding, the cost for antiretroviral therapy must not be underestimated. The attainments of price reductions on the global trade level remain remarkable.

How the global AIDS community, pharmaceutical companies, the World Trade Organization (WTO) and various nations battled to both overcome and maintain this host of obstacles will bear closer scrutiny in Chapter Five.

2.1.2 Microbicides – The New Hope?

The basic idea behind microbicides is old and simple. Nonoxynol-9 – a so-called spermicidal surfactant – had been used for 50 years as a means to reduce the risk of unwanted pregnancy.[18] After the notably more attractive 'pill' was designed and sold, spermicides, though still available on the market, became economically and

[13] Cf. ACHAP Review 2005, The African Comprehensive HIV/AIDS Partnerships (Garborone, Botswana, 2005) 1.
[14] Cf. UNAIDS 2006, 152.
[15] Cf. ibid. 152.
[16] Cf. ibid. 155.
[17] Ibid. 157-158.
[18] Cf. Polly F. Harrison, Trisha L. Lamphear, "Microbicides," 2004, *The AIDS Pandemic: Impact on Science and Society*, Kenneth H. Mayer, H.F. Pizer (California: Elsevier Academic Press, 2005) 191.

scientifically marginal, and research receded heavily. Despite the fact that nonoxynol-9 proved partially effective against sexually transmitted infections (STIs) as chlamydia, gonorrhea and syphilis in the 1970s, research was reported to be poorly funded and overall insignificant.[19] Only when it became threateningly obvious that the HIV/AIDS epidemic is very likely to leave the homosexual framework, the picture changed. When UNAIDS announced in 1996 that the female share in global HIV infections was 42%, interest in the nonoxynol-9 spermicide revived.[20] Contrary to expectation, trials with these products proved ineffective and, even worse, harmful and favouring HIV infection. Hence, the Center for Disease Control and Prevention (CDC) and the World Health Organization (WHO) were left with no other choice than issuing cautionary statements about the use of products containing nonoxynol-9.[21]

Much has changed since then: articles on microbicide research have risen, public and governmental donations have risen and, along with a considerable expansion of the pipeline and clinical trials, public expectations and hopes have risen, too.[22] Moreover, the dramatic ascent in the HIV/AIDS microbicide and vaccine research field has also greatly stimulated research on malaria and tuberculosis (TB), which are equally threatening and interdependent health issues, altogether often referred to as the "three great global killers".[23]

Referring to a concrete point of time or year as to finally count on microbicides as central part of prevention, it appears that the research field has left the question *if* and self-confidently moved on to the question *when*. According to the Global Campaign for Microbicides (GCM), which effectively leads the field along with the Alliance for Microbicide Development since 1993,[24] a microbicide could be ready for distribution by the end of 2010, "if one of the five candidates that are currently in advanced clinical trials proves to be effective."[25] UNAIDS/WHO appear to be equally optimistic. According to them, 60 product leads are seriously pursued at the moment, of which at least eleven have already proven effective in animals. If one of these leads proves successful in people, too, "a microbicide could be available in

[19] Cf. Harrison, Lamphear 191.
[20] Cf. ibid. 192.
[21] Cf. ibid. 192.
[22] Cf. ibid. 228-229.
[23] Ibid. 229.
[24] Cf. ibid. 213.
[25] Global Campaign for Microbicides (GCM), "Managing Expectations around Microbicides," June 2006, 1, http://www.global-campaign.org/clientfiles/FS19-Expectations%20[E](1).pdf (accessed 22 Dec. 2006).

five or seven years."[26] Yet, a host of challenges and obstacles have to be faced. GCM estimates that the first generation of microbicides "is likely to reduce risk of transmission by no more than 40 to 60 percent."[27] As a concrete prospect as to what microbicides will be capable of, the Campaign estimates that 2.5 million HIV infections could be averted over three years in 73 low-income countries.[28] GCM also emphasizes that a variety of steps lie between a successful trial and the actual distribution of the product. First, successful clinical trials must be re-confirmed through repetition in different populations. Then, at least one regulatory drug agency must review and license the drug for use until, finally, the product can be manufactured, registered and introduced in the various settings.[29]

The Global Campaign relentlessly repeats its dedication to the "public health mission"[30] of the microbicide field. Neither microbicides nor vaccines are invented or will be distributed devoid of economic interests of pharmaceutical companies. This dangerous attractiveness makes it even more crucial, but challenging to ensure that those most critically in need of such products will be receiving them first. According to GCM, public sector developers and advocates are making major efforts to smooth the way for a widespread accessibility and affordability, mainly through negotiating such agreements with product sponsors.[31]

Growing scientific confidence was also borne along by growing resources. Since 2000, spending by the public and philanthropic sectors has more than doubled.[32] Altogether, i.e. including governmental investments, about 55 million Euros total were spent globally on microbicide research, development, testing, policy and advocacy in 2000. This amount more than doubled in 2004 to 110 million Euros.[33] Unfortunately, it appears to be the rule in the current fight against HIV/AIDS that more is never enough. Although such increments seem promising and edifying, GCM estimates that 220 million Euros must be raised anually over the next five years in order "to ensure timely development of a safe and effective microbicide."[34] This sum predominantly consists of research and clinical testing –

[26] UNAIDS, "Microbicides," http://www.unaids.org/en/Issues/Research/Microbicides.asp (accessed 22 Dec. 2006).
[27] GCM 3.
[28] Cf. ibid. 3.
[29] Cf. ibid. 3.
[30] Ibid. 3.
[31] Cf. ibid. 2.
[32] Cf. UNAIDS 2006, 144.
[33] Cf. GCM 4.
[34] Ibid. 4.

the remaining 25 million make up advocacy and policy as well as clinical trial site development.[35] Although it is strongly believed that efficiency and user-friendliness will increase while prices will further drop, the obstacle of applicators and shipping, which in most cases outdo the cost for the product itself, remains.[36]

Eventually, it appears crucial to look behind the motivation of developing such a prevention tool as microbicides. It is hardly avoidable to think that microbicides are a substitute for the failure and incapability to reach gender equality, mainly in sub-Saharan Africa. It remains a fact that women in this region are very often not in the position to choose where, when, with whom and how they have sex.[37] Being anatomically more vulnerable to HIV than men anyhow, an economic and social lack of power only increases this basic vulnerability.[38] Serious attempts or plans of women to negotiate condom use can result in punitive responses. Apart from problems of gender asymmetry and often male promiscuity, which is a strong catalyst of the epidemic, there is also the sexual preference of so-called 'dry sex' in parts of Eastern Africa, which further complicates the entire development of a microbicide.[39] Thus, a gel – the intended form of the microbicide – must not wet the vagina too much, or elsewise the man might not let the woman use it.[40]

Elaborating on these elements of sexual culture and gender inequity, it becomes evident that the epicentre of the virus, located in sub-Saharan Africa, is not coincident. In other words, the settings are ideal for a virus such as HIV/AIDS.

2.1.3 Donations – How a Success Becomes a Setback

In 1996, when UNAIDS was launched, US$300 million were spent annually for the HIV/AIDS response in low- and middle-income countries. Today, this amount has increased 28-fold to US$8.3 billion in 2005.[41] At first sight, it appears a strong and impressive success, a great product of united forces and collaboration of organizations, private households and new government programmes. This, undoubtedly, is true. Yet, it is also true that the epidemic is outpacing its response – even despite these remarkable united strides. In its *2006 Report on the Global AIDS*

[35] Cf. ibid. 4.
[36] Cf. ibid. 4.
[37] Wolfgang Drechsler, "…ohne dass er's mitbekommt," *Handelsblatt* 17 Aug. 2006.
[38] Cf. Harrison, Lamphear 193.
[39] Drechsler.
[40] Ibid.
[41] Cf. UNAIDS 2006, 224.

Epidemic, UNAIDS puts it quite frankly: "The annual increases in funding have been impressive but, given the rapid spread of the epidemic, the resulting amounts are disappointing."[42]

Even more neutralizing is the fact that in 2005, the United States' federal government – together with the state government responsible for nearly half of all health-care spendings – "committed to spending US$17.3 billion on the domestic response to AIDS that year".[43] The United States account for approximately 1.2 million people living with HIV/AIDS, which make up a percentage of about 0.6%.[44] The federal government of the United States affords a sum for its 1.2 million people that is twice as high as what all forces on the planet afford for all people living with HIV/AIDS in low- and middle-income countries.[45] This is a noticeable and transferable example for overall global inequity – in the fight against HIV/AIDS and elsewhere. It also necessitates the question: who pays for whom in the global fight against HIV/AIDS? The inhabitants of the 22 high-income countries (879 million people (13.6%) of the world's population) are the main donors of development aid for the remaining 5.5 billion people (85%) of the 148 countries classified as low- and middle-income by the World Bank.[46] Nevertheless, it is only Norway, Denmark, the Netherlands, Luxembourg and Sweden that fulfil the goal of donating 0.7% of the Gross Domestic Product (GDP), as promised at the UN General Assembly by the Development Assistance Committee (DAC) members in 1969.[47] Not surprisingly, Japan and the United States donate sums that are incomparable in height and meaning to those of Denmark and the like. However, in international comparison, they fall awkwardly behind. In 2003, the United States had a net official development assistance (ODA) of 0.14 as percentage of GDP, Japan made it to 0.2.[48] Since only five of all 22 member countries of the Development Assistance Committee (DAC) of the OECD succeeded in keeping the promise, it was inescapable to renew the assistance in 2005 at the G8 Summit at Gleneagles.[49] Another commitment was to double aid to Africa, which, if partially or completely fulfilled, will greatly contribute to fight the growing crisis on the continent.

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[42] Ibid. 224.
[43] Ibid. 225.
[44] Cf. ibid. 45.
[45] Cf. ibid. 45.
[46] Cf. ibid. 225.
[47] Cf. ibid. 235.
[48] Cf. UNAIDS, 2004 Report on the Global AIDS Epidemic (Geneva, 2004) 129.
[49] Cf. UNAIDS 2006, 235-236.

When stating that donations are not sufficient, it is also worth mentioning that this is not merely due to a lack of resources, but also due to mismatch – a faithful companion of donations – "between where the money was needed and where it was actually spent."[50] On the one hand, this can often be traced back to insufficient government plans that are not strategic, evidence-based and targeted enough.[51] On the other hand, it can be blamed on a lack of agreement on priorities and a deficiency of comparable estimates as to what is required.[52] Of course, this adds a little doubt to the estimates UN launched in 2001. Nevertheless, it is proven that the Global Tracking Consortium, the UNAIDS Reference Group on Economics and the UNAIDS Reference Group on Estimates, Modeling and Projections made very close estimates in the past. According to them, donations will rise to US$10 billion in 2007.[53] Unfortunately, they also estimate that US$18.1 billion are needed to meet the requirements. Even for 2006, they forecasted an amount of US$14.9 billion needed, which at least makes up a shortfall of around US$6 billion. The utopian sum of US$22.1 billion must be raised in 2008, according to their estimates, to initiate an effective and sensible global HIV/AIDS response.[54] This, and the thesis that countries could afford more if they took the epidemic more seriously, is reason enough to see a disappointment in the 28-fold increase in donations, as mentioned at the beginning of this chapter.

Although it is neither intended nor possible to do an overall coverage of the epidemic's financing complex here, a few elements appear worth taking into account. Despite the fact that 30% of all spendings in low- and middle-income countries are domestic, government spending has not managed to keep up with the expanded need for treatment, care and prevention.[55] Furthermore, UNAIDS reports that out-of-pocket spendings are included in the US$8.3 billion in 2005.[56] These donations stem from people living with HIV/AIDS and their households. It is reported that "[i]n millions of cases, they were spending far beyond their capacity and being driven deeper into poverty and debt but still not receiving antiretroviral therapy and other basic services."[57]

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[50] Cf. ibid. 225.
[51] Cf. ibid. 236.
[52] Cf. ibid. 249.
[53] Cf. ibid. 224-225.
[54] Cf. ibid. 224-225.
[55] Cf. ibid. 234.
[56] Cf. ibid. 234.
[57] Ibid. 224.

Despite the modest success, or relative disappointment, it must not be ignored that within the last four years considerable, unknown resources could be mobilized. First, there is the United State's President's Emergency Plan for AIDS Relief (PEPFAR), which announced a commitment of US$15 billion over five years for the global AIDS fight in January 2003.[58] Second, the World Bank committed a total of more than US$2.5 billion to HIV projects, which makes it second largest multilateral donor for low- and middle-income countries. US$1.15 billion were committed to 33 projects in 33 different countries in sub-Saharan Africa through its Multi Country HIV/AIDS Programme, of which US$545 million have been disbursed.[59] And third, there is the biggest multilateral donor, the Global Fund to Fight AIDS, Tuberculosis and Malaria, which was built on a holistic conception that treatment of these previously described 'three global killers' must be interdependent and comprehensive. The fact bears reminding that tuberculosis is the leading cause of death among people with HIV infection.[60] Bill Gates, Co-chair of the Bill & Melinda Gates Foundation, described the Global Fund as "one of the most important health initiatives in the world today" [61] and underpinned his words with a US$500 million contribution over five years by the Gates Foundation one week prior to the XVI AIDS Conference in Toronto in August 2006.[62] Also Dr. Peter Piot, Executive Director UNAIDS, described the Global Fund as "the best model to provide strategic and predictable funding."[63] Reasons for this reputation do not have to be searched for extensively. 132 countries have begun to produce "substantial results"[64] with grants from the Global Fund, including life-extending HIV/AIDS treatment for 544 000 people, tuberculosis treatment for 1.4 million people and 11 million bed nets for malaria child protection.[65] The Global Fund seeks for a new partnership approach between governments, civil society, the private sector and affected communities and attempts to fulfil its holistic goal by a distribution of funding. 56% of all Global Fund commitments up to the end of 2005 were spent on HIV, 26% on malaria and 17% on

[58] Cf. ibid. 240.
[59] Cf. ibid. 243.
[60] Cf. ibid. 241.
[61] The Global Fund to Fight AIDS, Tuberculosis and Malaria, Press Release, "Global Fund Announces US$500 Million Contribution From Bill & Melinda Gates Foundation," 9 Aug. 2006, http://www.the globalfund.org/en/media_center/press/pr_060809.asp (accessed 30 Dec. 2006).
[62] Cf. The Global Fund to Fight AIDS, Tuberculosis and Malaria.
[63] Ibid.
[64] Ibid.
[65] Cf. ibid.

tuberculosis.[66] 67% thereof go to low-income countries, 25% to lower-middle income and 8% to upper-middle income countries.[67] The Global Fund's Voluntary Replenishment Meetings with representatives of all stakeholder groups offer the chance for evaluation, strategic planning and making pledges on mutually agreed targets.

It appears impossible to mention a success in the current fight against HIV/AIDS without mentioning the deficiencies. As the epidemic evolves, and evolves faster than the increase in donations, a so-called success becomes easily a 'relative' or 'modest' success. Admittedly, the world has never afforded comparable sums of money for the fight against HIV/AIDS. But neither has it witnessed a comparable global disease. To close the gap, UNAIDS suggests two things: first, "more money must be raised,"[68] and second, "a better use of whatever money may be available"[69] must be ensured. There are also ideas like adding an AIDS tax to air fares or income tax and issuing bonds.

At least one thing is clear: the global AIDS community is dependent on more resources – by whatever means. In the meantime, a triage model will bring healing to those affected – or not.

2.2 Backward

2.2.1 Sub-Saharan Africa

Sub-Saharan Africa perfectly exemplifies what the AIDS epidemic is capable of. Or, to put it more dramatically, but not less realistically, it is also a bitter foretaste what else it can do and surely would have done without all the efforts undertaken in recent years. The marks it has left so far on southern African life are far beyond imagination for western viewpoints and there is no end in sight. In fact, the virus is far from being tamed. It is not even captured yet. How relatively well developed countries have learnt to live and cope with the virus becomes clear when we dare a glance down the African continent, where the effects are literally devastating and the virus is partially deleting entire areas like the Plague. But in fact, has the HIV/AIDS virus not

[66] Cf. UNAIDS 2006, 242.
[67] Cf. ibid. 242.
[68] Ibid. 250.
[69] Ibid. 250.

replaced the Plague in its effects, damages and challenges? Is it not legitimate to call HIV/AIDS 'the new Plague'?

2.2.1.1 Circumstances, Prerequisites and Origins

Currently, 64% of all people living with HIV/AIDS live in sub-Saharan Africa.[70] Three quarters of all infected women worldwide – approximately 13.2 out of 17.3 million total – are resident in sub-Saharan Africa. An estimated twelve million children under the age of 17 in sub-Saharan Africa have been fully or half orphaned, i.e. have lost one or both parents to AIDS.[71] 90% of the total number of children in the world infected with HIV/AIDS live in sub-Saharan Africa. Fewer than one in ten of these children are being treated appropriately or even reached by basic treatment and support services.

The greatest reason for the severity of this region's epidemic can be named quite easily: heterosexual sex. Whereas blood transfusions, injecting drug usage or homosexual sex are reported to be major reasons for HIV/AIDS in certain regions in the world (e.g. Germany), Africa and predominantly sub-Saharan Africa are riven by a heterosexual AIDS epidemic that is mostly affecting women, with a clear tendency to affect younger women. Yet, to fully understand the uniqueness of the sub-Saharan AIDS crisis, one has to add up the various effects and interdependence of AIDS drivers such as gender inequality, impoverishment, decline of social services, rapid urbanization, 'modernization', war and conflict.[72] Salim Abdool Karim, Director of the Center for the AIDS Programme of Research in South Africa, enumerates "social and political instability, disruption of social support mechanisms and family structures, migrancy, high rates of other sexually transmitted infections, opportunistic infections, the subordinate position of women, and armed conflicts."[73] One should not forget that the rather neutral term 'gender inequality' in this context also includes subordination, violent oppression and discrimination against women.[74] Furthermore, it remains open if an HIV-infected husband's sole decision to have

[70] UNAIDS, 2006 Report on the Global Epidemic, Fact Sheet 06, Sub-Saharan Africa.
[71] Cf. Ibid.
[72] Anne Buvé, Kizito Bishikawoba-Nsarhaza, Gladys Mutangadura, "The Spread and Effect of HIV-1 Infection in Sub-Saharan Africa," *The Lancet*, Vol. 359, 8 June 2002, 2013, http://www.thelancet.com/journals/lancet/article/PIIS0140673602088232/fulltext (accessed 2 Jan. 2007).
[73] Salim S. Abdool Karim, "The African Experience," 2005, *The AIDS Pandemic: Impact on Science and Society*, Kenneth H. Mayer, H.F. Pizer (California: Elsevier Academic Press, 2005) 356.
[74] Cf. Buvé, Bishikawoba-Nsarhaza, Mutangadura 2014.

unprotected sex with his wife is still oppression. Especially in Africa, where the limitations of life-prolonging opportunities for HIV/AIDS patients are obvious, this kind of behaviour could also be interpreted as gradual homicide or murder on hire purchase. As already touched upon in the microbicide sub-chapter, possibilities for women to discuss places, times and partners of sexual intercourse are often grossly limited due to their subordinate socio-economic and cultural position.[75] The fact that extramarital affairs of both sexes are often tolerated and partially even expected of men paves the way for the virus to spread. Not exclusively defined as an African phenomenon, young men's need or peer pressure to prove their masculinity through early sexual debuts and many sexual conquests only optimizes the infectiousness.[76] The cultural tradition of bride payments (or dowries) also increases vulnerability. The perpetuated idea that women are thus husbands' property leads to a further lack of control and overall paralysis in decision-making. This shows far-reaching effects in restrictions when it comes "to access to education, employment, credit, health care, land, and inheritance."[77] The resulting powerlessness leads to economic dependency that decreases the possibilities of negotiating safe sex, and, furthermore, often forces women to offer sex in exchange for money or goods in order to survive.[78]

The latter point bridges poverty and AIDS. It appears obvious that in times and circumstances of severe poverty, priorities shift, too. Poor conditions are not in favour of an AIDS priority or at least awareness and caution.[79] Daily concerns simply do not allow a more sensible and careful approach to an issue that has not yet found its way into every public's mind. Limitations of poorer people to access education also affect their chances to get a hold of safe-sex information. It has been frequently reported that there is a strong connection between safe sex and education. Condom use is often associated with higher levels of education, which, however, are connected with wealth and better social status.[80] Yet, it is not that simple: Botswana, Namibia and South Africa are among the hardest AIDS-torn sub-Saharan African nations. Yet, simultaneously, they have the highest per capita gross national product

[75] Cf. ibid. 2014.
[76] Cf. ibid. 2014.
[77] Abdool Karim 358.
[78] Cf. Buvé, Bishikawoba-Nsarhaza, Mutangadura 2014.
[79] Cf. ibid. 2014.
[80] Cf. ibid. 2014.

in sub-Saharan Africa.[81] Although poverty and AIDS build a highly interdependent and most dangerous vicious circle, poverty cannot solely explain strongly advanced epidemics.

Hence, other reasons must be searched for to capture the complexity of reasons and origins in its entirety. Urban growth is a keyword here. The rapid expansion of urban areas – partly resulting from higher birth rates, partly resulting from increased migration of young men and often economically restrained women from rural areas – has grossly pushed HIV vulnerability ahead.[82] On the one hand, it is obvious that resettlement is problematic and often results in poverty and its consequences for sexual responsibility and vulnerability. On the other hand, cities are known for being more sexually permissive, less restrictive in terms of sexual behaviour and marriage and less bound to traditional village norms.[83] Especially in slums, the combination of poverty and very limited sexual norms can lead to early sexual initiation and an increase in partners.[84] This demonstrates quite clearly how vicious the circle of poverty and AIDS is. Particularly in connection with HIV/AIDS, poverty and misery are always more likely to increase than fall.

Wars and conflicts must also be added to the already overburdened picture. It has been reported that "[s]ince 1980, no less than 28 of 53 African states have been at war."[85] In war scenarios, human rights are more likely to be hurt and sexual violence and rape are known side-effects.[86] The risk of HIV infections is further increased by the necessity to revert to prostitution due to poverty triggered by war and oppression. Moreover, war and civil strife set off displacements of people that might lead to an "interruption of social cohesion and relationships, promiscuity, inadequate shelter, and commercial sex."[87] All these enumerated consequences of war increase vulnerability to HIV. But despite the given focus of the AIDS pandemic here, one must not forget that all this hardship itself is a far greater problem and even more worrisome than HIV/AIDS, which still remains a small part of the overall misery. It also demonstrates the vast complexity and enormous challenge of the fight against HIV/AIDS. If not obvious already, it now slowly but steadily dawns on us that treating individual sicknesses does not suffice, but that really fighting the disease

[81] Cf. ibid. 2014.
[82] Cf. ibid. 2014.
[83] Cf. ibid. 2014.
[84] Cf. ibid. 2015.
[85] Ibid. 2013.
[86] Cf. ibid. 2015.
[87] Cf. ibid. 2015.

means eradicating the origins that create vulnerable conditions and provoke infection.

And there is no scarcity of origins in sight. Deeply rooted in sub-Saharan society, migrancy plays a vital role in the organization and order of society.[88] It is fundamental and unavoidable, but of high risk for contracting and spreading HIV. "Migrant populations [such as truck drivers or seasonal miners] create a market for commercial sex."[89] HIV prevalence is frequently reported to be extremely high in sex workers, who are legitimately counted among one of the four high-risk groups by UNAIDS and others. The logical consequence is that it is only a question of time when their main clients, namely the truck drivers, contract HIV, too. After a certain time, they return home and probably infect their regular sex partners, who then, in cases of pregnancy or forthcoming pregnancy, are at risk to infect their children.[90] A survey of a gold mining area near Johannesburg unveiled that 20% of the 88 000 miners and 75% of the 500 sex workers who serviced the miners were HIV-positive.[91] Fortunately, the number of miners is considerably higher than the number of sex workers. Yet, it would be useful, if the survey delivered the percentage of miners who actually consult sex workers in order to evaluate the risk of infection.

Another concrete example is that of the paving of the highway from Kinshasa in the Democratic Republic of the Congo to Mombasa on the Indian Ocean. It is estimated that 90% of the sex workers working on the East African part of the road harbour HIV and, thus, help carrying it to the most remote corners of the continent.[92]

2.2.1.2 Solutions in a Nutshell

The list of prerequisites and origins is not only long, it also consists of deeply rooted cultural traditions and ways life is organized. Apart from individual treatment, a targeted intervention is vital to eradicate the prerequisites for the disease comprehensively. But considering this lengthy list of deficient situations, a comprehensive approach would mean turning almost the entire continent upside down. The agenda would be overburdened, rather utopian, and, apart from limitations to the feasibility, perhaps not unanimously wanted. The antidote must be

[88] Cf. Abdool Karim 357.
[89] Ibid. 357.
[90] Cf. ibid. 357.
[91] Cf. ibid. 358.
[92] Cf. ibid. 357.

of a different nature. Solutions must be found to change HIV vulnerability and halt the spread of the disease to avoid the self-extinction of a continent, dramatically speaking. Armed conflicts, poverty, social disruption, discrimination against women and involuntary commercial sex must not only be fought for the sake of HIV/AIDS. They are major problems themselves that cause suffering and injustice and are a violation of internationally approved human rights. Nevertheless, fighting these conditions means fighting the grounds for AIDS. Yet, imminent suffering must not be forgotten. A mere concentration on these roots would not only make people living with HIV/AIDS fall short, but moreover neglect direct AIDS prevention, including condom distribution, free counselling and treatment, awareness raising, safe-sex information and sexual education, and safe blood transfusions. These preventive tools are most common and have been proven successful many a time. Positive examples are there – they must be followed and repeated.

Botswana, recently South Africa and Uganda have taken pioneer status in successful prevention and reduction of HIV prevalence. Uganda succeeded in diminishing HIV prevalence in pregnant urban women steadily for eight years in a row, from 29.5% in 1992 to 11.25% in 2000.[93] By means of "a multi-pronged effort to provide information, education, and communication through decentralized community-oriented programs,"[94] behaviour changes could be accomplished. Sexual intercourses could be delayed, abstinence was partially achieved and condom use by single women aged 15-24 almost doubled between 1995 and 2000/2001. In Kampala, 98% of the high-risk group of sex workers ('high-risk' in terms of both receivers and carriers) reported that they had used a condom the last time they had sex.[95] Yet, if this exemplary development and the figures are true, it bears reminding that wide condom use is very closely linked with gender equity, or at least a minimum of female decision-making. Structural conditions must be given to allow negotiation of safe sex, but such conditions remain anything but the rule in many (sub-Saharan) African countries. Therefore, Mutangadura demands that "[l]aw and policy makers, community leaders, and other people in positions of power should recognize the connection between women's economic and social status and their vulnerability to

[93] Cf. ibid. 362.
[94] Ibid. 362.
[95] Cf. ibid. 362.

HIV-1 infection,"[96] legitimately emphasizing that the female role in this business is critical enough to be made a policy priority.

Many suggestions as how to tackle the greatest health and developmental threat to the continent reveal the "complex interplay of behavioral factors and factors that affect transmission."[97] For example, stigma and discrimination are great allies of the virus and perfect presuppositions for its spread. It appears hard to grasp that stigma is still an issue in countries that have HIV prevalence rates above 20% or 30%. The question is how numerous a minority must become to leave fears of discrimination behind? Unfortunately, this question will probably not keep its hypothetical origin as the epidemic matures. The question is: will stigma only stop when the number of infected people will outdo the number of the uninfected? Countless people are afraid of either being tested or seeking treatment due to (fears of) discrimination. If tested HIV-positive, people are afraid of telling their husbands and/or sex partners the results due to fears of exposure to violence or abandonment.[98] Another reason for fighting stigma is that apathetic governments make use (or rather abuse) of it. As long as the public is uneducated about AIDS, scared and insecure about the legitimacy or right to treatment and government action, political leaders do not have to fear public pressure or demands. According to Abdool Karim, fear and prejudice are the most common ingredients for discrimination. Denial, secrecy and a scientifically unfounded perception of AIDS as "a universally fatal disease, acquired through immoral sexual acts,"[99] prevent people from either seeking or demanding Voluntary Counselling and Testing (VCT) and treatment. As the majority of Africans who are infected are said to be unaware of it, it seems vital to make testing more popular and common. VCT is reported to be "easier, cheaper, and more effective"[100] today due to rapid testing that does not let people hang in the balance for an awkward while. Yet, from a health care point of view, it appears ethically questionable to encourage people to find out their sero-status without having sufficient capacities and opportunities to treat them. In other words, fighting stigma, myths and irrational fears in order to talk people into getting tested presupposes (a) sufficient treatment resources in antiretroviral therapy and (b) sufficient trained personnel to manage the

[96] Buvé, Bishikawoba-Nsarhaza, Mutangadura 2016.
[97] Ibid. 2016.
[98] Cf. Abdool Karim 369.
[99] Ibid. 369.
[100] Ibid. 365.

implementation of such programmes.[101] Currently, both are unsatisfactory. Therefore, a mammoth scaling-up plan of treatment, condom distribution, health care infrastructure and sexual education is necessary, but not feasible without additional funding.[102]

Additionally, although it is unpleasant to mention among so many sinister prospects, it dawns that the worst is yet to come in Africa. One must not forget that people who seek treatment today have been infected approximately up to seven years ago when HIV prevalence rates were considerably lower than they are today. The reason for this is the latency period between infection and so-called full-blown AIDS, when people are facing actual life-threatening illnesses.[103] A prognosis from Colin Mathers and Dejan Loncar of the WHO in the journal PLoS Medicine says that in the year 2030, 6.5 million people will die from AIDS, which will then be the biggest deadly infectious disease on earth.[104] According to UNAIDS, in 2006, 2.9 million people have lost their lives to AIDS, and 4.3 million have become newly infected (with one third living in sub-Saharan Africa).[105] Yet, to relativize Mathers' and Loncar's thesis, the invention (and actual distribution) of a vaccine, for example, could change the complete picture again. Hence, it appears questionable to foresee an epidemic's course that has already deceived so many.

Despite all the different challenges that demand efforts from so different and numerous fields and institutions, Salim Karim seems to know the major weaknesses that cripple progress on his continent: "Nothing less than energetic national commitment and political will are demanded to deal with this challenge and to reverse its ravishes."[106]

2.2.2 A New Danger Evolves in the East

For some experts, it appears not appropriate anymore to speak of avoiding a crisis in Eastern Europe and Central Asia – the crisis is already there. Currently, 1.5 million people are infected with HIV in the region, with an estimated number of unrecorded

[101] Cf. ibid. 370.
[102] Cf. ibid. 369-370.
[103] Cf. ibid. 361.
[104] Cf. "WHO: Immer mehr Aids- und Verkehrstote," *Süddeutsche Zeitung* [München] 28 Nov. 2006.
[105] Cf. Jeanne Rubner, "Aids breitet sich weiter aus," *Süddeutsche Zeitung* [München] 22 Nov. 2006.
[106] Abdool Karim 370-371.

cases that extends to 2.3 million, or more.[107] Of course, one could argue that in relation to the size of the Eurasian population, the number is comparatively small. But this turns out to be ignorant when facing the fact that this number means "a twenty-fold increase in less than a decade,"[108] with a rather tiny amount of 30 000 reported cases in 1995.[109] This makes predominantly Russia and the Ukraine, but also their Eurasian neighbours home to the fastest spreading HIV epidemic in the world.

Despite similarities in urgency and speed of increase in HIV cases, the evolving AIDS crisis in Eastern Europe and Central Asia appears diametrically opposed to the sub-Saharan AIDS pandemic in its characteristics. The marginal share of injecting drug users in Southern Africa accounts for the majority of people living with HIV/AIDS and most-at-risk people. The phenomenon of an almost sole heterosexual and closely gender-linked AIDS crisis remains African. The needle, therefore, remains the symbol that characterizes the Eurasian AIDS crisis. In countries such as Iran, Ukraine and Estonia, which all have comparably low HIV prevalence rates below 2%, transmission attributable to intravenous drug users swings from 72%-90%.[110] In Ukrainian cities Odessa and Simferopol, around 58% of injecting drug users have tested HIV-positive, and in Odessa, 67% of those sex workers who also inject drugs were HIV-positive.[111] In general, it can be said that more than 70% of all HIV cases in the entire Eurasian region are drug users.[112] It becomes clear that HIV/AIDS leaves the framework of sexual transmission here, which so centrally described in the sub-Saharan Africa chapter.

A holistic approach would necessitate the origins and roots of drug use, which inescapably widen the whole context to an even greater complexity. Yet, for this particular examination, it is not necessarily vital to go as deep as to scrutinize the reasons for human addiction. It is also important to examine the conditions to get a hold of drugs, in other words: the availability of drugs and the market conditions. Chris Beyrer of the Johns Hopkins Bloomberg School of Public Health in Baltimore

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[107] Cf. UNAIDS 2006, 34.
[108] Ibid. 34.
[109] Stephen Pincock, "Experts Warn of AIDS Threat to Eastern Europe," *The Lancet*, Vol. 363, Feb. 28, 2004, 712, http://www.thelancet.com/journals/lancet/article/PIIS0140673604156675/fulltext (accessed 5 Jan. 2007).
[110] Cathel Kerr, "Injection Drug Use Fuels HIV/AIDS Epidemic across Eurasia," *The Lancet*, Vol. 5, Sept. 2005, 539, http://www.thelancet.com/journals/laninf/article/PIIS1473309905702085/fulltext (accessed 5 Jan. 2007).
[111] Cf. UNAIDS 2006, 36.
[112] Cf. ibid. 36.

believes that "[a]n HIV epidemic is following the trail of heroin from Afghanistan through central Asia to Eastern Europe."[113] He supposes that Afghanistan produced 4200 tons of opium in 2004 and that "income from poppies far outstrips that from legitimate crops such as wheat."[114] Although Beyrer believes that the Ukrainian epidemic is fuelled by locally grown opiates, he attaches great importance to the proximity to overland drug trafficking routes and limited access to HIV prevention and drug treatment for intravenous drug users.[115]

UNAIDS reports that antiretroviral therapy covers 21 000 out of 160 000 people in need of treatment at the end of 2005, reminding us that injecting drug users, who account for more than 70% of HIV cases in the region, only represent about 24% of those receiving antiretroviral therapy.[116] Nevertheless, despite these discouraging figures, high hopes are attached to the treatment potential of the Russian Federation, which has the biggest AIDS epidemic in all of Europe. Although it is estimated that the 350 000 officially registered cases only make up to a third of actual HIV cases, Russia is said to have some attributes that could put it in a good position to fight the sickness. In contrast to many of its neighbours, the country is said to have "a functioning, albeit dilapidated, infrastructure; armies of highly trained health professionals: oil-enriched financial resources; and, crucially, signs of growing political will."[117] The Global Fund to Fight AIDS, Tuberculosis and Malaria is the biggest external donor in Russia and has successfully brought down antiretroviral drug prices from US and EU levels of US$6000 - 7000 a year to an average of US$2000. Hence, Richard Feachem, head of the Global Fund, encouragingly announced at the first Eastern European and Central Asian AIDS Conference in 2006 that universal access to ARVs will not be achieved by 2010, as targeted at the Gleneagles G8 meeting in 2005, but two years earlier in 2008.[118]

Yet, the disease does not remain a symptom of the drug scene – although it must be said that the virus originated from men who have sex with men. It was only from the 1990s onwards that HIV/AIDS left the homosexual framework to

[113] Kerr 539.
[114] Ibid. 539.
[115] Cf. ibid. 539.
[116] Cf. UNAIDS 2006, 34.
[117] "Russia, the G8, and HIV," *The Lancet*, Vol. 367, 27 May 2006, 1703, http://www.thelancet.com/journals/lancet/article/PIIS0140673606687424/fulltext (accessed 5 Jan. 2007).
[118] Cf. ibid. 1703.

increasingly affect intravenous drug users.[119] It appears to be a rule in the spread of HIV that an explosion in high-risk groups – such as homosexual men and drug users – must automatically lead to a more generalized concentration. Sooner or later, the virus leaves the concentrated field of individuals who engage in high-risk behaviour and moves on to wider, generalized fields. The rush to the heterosexual 'scene' indicates the ascent to a generalized epidemic that can potentially reach the entire population. This thesis, or rule, derives from that fact that some men who have sex with men also have sex with women. Moreover, infected intravenous drug users also participate in unsafe sex. Hence, HIV in Eurasia spreads from injecting drug users, who happen to be predominantly male, to their sexual partners and beyond.[120] As women are biologically more vulnerable to HIV and men more likely to carry the virus due to male supremacy in the drug scene, an increasing feminization of the Eurasian epidemic only remains a question of time. As the disease settles in heterosexual people, women are becoming more and more involved. In 2004, in the Russian Federation, 38% of total registered cases were in women, and there is a clear trend among girls in their late teenage years.[121]

The Eurasian AIDS pandemic is not huge or endemic, but it is growing. And a disease that is rapidly growing will most probably turn big. The dangerous thing about the crisis in Eastern Europe and Central Asia is that its current HIV prevalence seems low compared to other crises as in sub-Saharan Africa. Yet, this impression is deceiving: its true threat lies in the enormous speed of growth and spread. Thus, to avoid the logic of the disease's snowball effect, it is vital to prevent a potential disaster instead of submitting to damage control, which is no promising venture. The Partnership to Fight HIV/AIDS in Europe and Central Asia, set up at a high level international meeting in Dublin in February 2004, plans to eliminate HIV infant infection by 2010.[122] The Partnership declared to offer access to treatment and harm reduction services to 80% of drug users by 2006 and universal HAART (highly active antiretroviral therapy) access by 2010.[123]

Yet, legality remains a great problem in the field of drugs that impedes prevention. The strict legal penalties for the possession of drugs often make it difficult for health workers to provide syringes and other harm reduction services

[119] Cf. ibid. 1703.
[120] Cf. UNAIDS 2006, 35.
[121] Cf. ibid. 35.
[122] Cf. ibid. 35.
[123] Cf. Pincock 712.

without making themselves liable to prosecution.[124] In Russia, this is due to the 1998 Federal Law on Narcotic and Psychoactive Substances, which experienced the vital amendment in 2004 that provision of syringes and needle-exchange is necessary to fight AIDS and does not propagate illegal drug use.[125] Yet, this is still an obstacle in many other countries, and it undoubtedly remains an ethical conflict in how far drug users can be supported without promoting drugs.

However, the four most-at-risk groups, sex workers, prisoners, homosexual men and injecting drug users, are not only classified most-at-risk because of what they are or what they do. They are also positioned on the very margins of society. These positions do not have a strong lobby and people are exposed to discrimination, bias and a lack of support, financially and else. But now the epidemic leaves this subcultural framework, and the EU fears its trading bloc to be crippled – an incentive to act.

2.2.3 An HIV Vaccine – Magic Bullet/Predictable Failure

Admittedly, the mere thought of an HIV vaccine, an antidote, a magic bullet, is exceedingly tempting. With all these relentless challenges, never-ending obstacles and misery, the sole idea or possibility of a vaccine that heals every infected cell in every infected body, is highly attractive. All efforts and strains to change behaviour, all traumas that infected or affected people had and have to face were obsolete. The present would transform into memories of an era that left mankind paralyzed and incessantly demonstrated the supremacy of an invulnerable virus over a united and well-funded group of scientists.

Unfortunately, yet not surprisingly, reality is different. The 'magic bullet' or 'miraculous pill' remains magical and miraculous – not real. The truth is that there is no vaccine. And the truth is that there is no vaccine in sight. And if at one stage or another, a vaccine will be designed, it will most probably not be able to kill the virus completely and release immunity. Furthermore, it will have to be delivered and made available to economically constrained settings, which brings us back to problems of

[124] Hannah Brown, "Drug Users Carry the Main Burden of Russia's Epidemic of HIV," *The Lancet*, Vol. 6, July 2006, 394, http://www.thelancet.com/journals/laninf/article/PIIS1473309906705047/fulltext (accessed 5 Jan. 2007).
[125] Cf. Brown 394.

infrastructure that currently impede coverage of treatment, prevention or awareness raising.

Obviously, there is a host of daunting obstacles, limitations and great challenges. Yet, there are also countless new scientific insights, numerous promising trial candidates, increased funding and a vivid landscape of partnerships. In short, there are various reasons for optimism and pessimism alike that will now both be looked at.

2.2.3.1 Past and Current Shape of the AIDS Vaccine Industry

One reason for failure can surely be found in a belated, under-funded beginning of a serious HIV vaccine research. It appears comprehensible, but not ethically legitimate, that major government incentives were missing in the wake of the epidemic, when it was unforeseeable that HIV/AIDS would transform from a disease of a minority to a health threat on an unimaginable scale.[126] Hence, it is little surprising that at that time "the HIV vaccine development effort by major pharmaceutical companies was limited or non-existent."[127] Even in 2003, Seth Berkely, president and chief executive officer of the International AIDS Vaccine Initiative (IAVI), reported that "less than 1% of health research and development is directed to developing an AIDS vaccine."[128] By the mid-1990s, after little progress, scientists abandoned and told Berkely that the vaccine effort, which at that time constituted 7% of the National Institute of Health's (NIH) AIDS budget, was pointless and doomed to fail.[129] Additionally, vaccines had been classed as unprofitable by the private sector and even many AIDS activists considered drug treatment more vital than a vague search for a vague vaccine.[130] Yet, the NIH-funded HIV Vaccine Trials Network and the founding of the IAVI, which started in 1996 with fundings of US$100 000, marked a corner-stone in the evolution of research development. These pioneering examples of public-private partnerships were said to be able to support international trials of

[126] Cf. Laurence Peiperl and Susan Buchbinder, "Challenges in Developing HIV Vaccines," 2004, *The AIDS Pandemic: Impact on Science and Society,* Kenneth H. Mayer, H.F. Pizer (California: Elsevier Academic Press, 2005) 183.
[127] Peiperl and Buchbinder 183.
[128] Seth Berkely, "Thorny Issues in the Ethics of AIDS Vaccine Trials," *The Lancet*, Vol. 362, Sept. 2003, 992, http://www.thelancet.com/journals/lancet/article/PIIS0140673603143711/fulltext (accessed 12 Jan. 2007).
[129] Cf. Faith McLellan, "Seth Berkely – Working towards an HIV Vaccine," *The Lancet*, Vol. 358, Dec. 2001, 1880, http://www.thelancet.com/journals/lancet/article/PIIS014067360106932X/fulltext (accessed 12 Jan. 2007).
[130] Cf. McLellan 1880.

privately developed vaccine candidates and were widely considered "to have jump-started HIV vaccine development to some extent."[131] In 2001, only five years after its launch, the IAVI had raised US$250 million and involved several countries and foundations in their agenda of accelerating scientific research, amplifying the global demand for a vaccine and creating incentives, such as tax credits, for pharmaceutical and biotechnological companies.[132] Along with the community and consumer-based AIDS Vaccine Advocacy Coalition (AVAC), founded in 1995, IAVI also devoted itself to ensure global access and delivery of vaccines in the case of a scientific breakthrough. Other partnerships, such as the European Vaccine Effort Against HIV/AIDS (EuroVac) bring European preventive candidates into Phase I clinical trials.[133] The South African AIDS Vaccine Initiative (SAAVI) has been co-ordinating research, development and testing in South Africa since 1999.[134] The Dale and Betty Bumpers Vaccine Research Center, created by the US NIH and the public-private Canadian Network for Vaccines and Immunotherapeutics (CANVAC), are American and Canadian equivalents, focused on research.[135]

It has been portrayed how numerous organizations, international partnerships and laboratories are jointly working towards a scientific breakthrough. It is noteworthy that compared with the age of the HI virus, most of these undertakings can be considered relatively new. It has been strongly emphasized how essential international collaboration and exchange of scientific insights are. Private-public undertakings can surely be pinned hope on for future vaccine science. But despite all these efforts, one bitter fact, a question and a fear cloud the current debate. First, the fact remains that there is no effective vaccine at the moment. Second, the question remains how long infected and affected people must wait until a vaccine is developed, sufficiently tested, licensed and ready for delivery. And third, the fear remains that a vaccine is sheer utopia, mere wishful thinking and simply beyond scientific potential – a fact which must sooner or later be accepted. There is no satisfying result at present, and it is unknown when and if a vaccine will be designed in the future. This described fact, this question and this fear currently build a trinity of failure. The only question now is: are all these undertakings and new insights by failure in endless trials, which taught scientists what options to exclude, increasing or

[131] Peiperl and Buchbinder 183.
[132] Cf. McLellan 1880.
[133] Cf. ibid. 1880.
[134] Cf. ibid. 1880.
[135] Peiperl and Buchbinder 186-187.

decreasing the possibility of a future success? Robert C. Gallo puts it like this: "Indeed, many scientists regularly acknowledge the possibility of the impossibility of success."[136] And unfortunately, this appears comprehensible, as the following scientific problems and hurdles show.

2.2.3.2 Scientific Background, Challenges and Results

At the attempt of familiarizing oneself with the virology and immunology of the virus, it becomes imminently clear how great the scientific challenges to capture the virus really are. This is not exclusively due to the terminology and necessity of sophisticated scientific background knowledge, but also simply due to the fact that the characteristics and 'defense mechanisms' of the HI virus are highly complex.

One of the biggest obstacles described by Gallo is the fact that HIV is a retrovirus: there is not one single documented case of a complete viral clearance in retroviruses.[137] HIV has the ability to integrate its genes into the target cell DNA so quickly that a lifelong infection can only be prevented at the time of initial exposure to the virus.[138] This occasion is obviously very rare and, thus, of no relevance to the development of a vaccine. Moreover, attempts of the immune system to defend itself against the intruder only seem to strengthen the virus. In order to escape from cellular or humoral antiviral immune responses, the virus reacts with a great breadth of mixed and matched mutations, which can be traced back to the virus' high rates of genome recombinations.[139] Trivially speaking, the virus knows how to defend itself against its enemies. Every attempt to fend off the intruder only makes the virus stronger, more numerous and faster. HIV is reported to have exceedingly high mutational and recombination mechanisms, which are capable of generating extensive pools of mutant viruses. All this is due to the fact that the virus replicates itself – actively and consistently.[140] It selectively infects CD4 T-helper cells, which control the immune system's response to infectious diseases, destroys them

[136] Robert C. Gallo, "The End or the Beginning of the Drive to an HIV-Preventive Vaccine: A View from over 20 Years," *The Lancet*, Vol. 366, Nov. 2005, 1894, http://www.thelancet.com/journals/lancet/article/PIIS0140673605673953/fulltext (accessed 12 Jan. 2006).
[137] Cf. ibid. 1894.
[138] Cf. ibid. 1894.
[139] Cf. David A. Garber, Guido Silvestri, and Mark B. Feinberg, "Prospects for an AIDS Vaccine: Three Big Questions, no Easy Answers," *The Lancet*, Vol. 4, July 2004, 405, http://www.thelancet.com/journals/laninf/article/PIIS1473309904010564/fulltext (accessed 12 Jan. 2007).
[140] Cf. ibid. 405.

progressively and, in the absence of treatment, avoids their regeneration, which initiates an immune system collapse.[141] The metaphor of the orchestra (immune system) that is lost and unable to play its tune without the conductor (T-helper cells) might serve as a useful illustration here.

Yet, HIV, like all viruses, is a parasite. Unlike bacteria, it is not capable of multiplying on its own. As a retrovirus, it does not carry its genetic information in DNA (deoxyribonucleic acid), but in RNA (ribonucleic acid). Hence, in order to survive and improve its chances to evolve, which is what all life does, HIV must convert its RNA into DNA and then back into RNA.[142] But it can also rest in an inactivated cell for years and only begin replicating once again when it is activated, literally like a time bomb.

These very narrowly portrayed characteristics had made and still make it highly challenging to develop a vaccine. One approach was to use attenuated, i.e. weakened, and actively replicating live HIV. Large numbers of effective vaccines against other viral diseases have been developed on these grounds. Yet, the insurmountable problem is that there is a serious danger that attenuated HIV would cause AIDS. The next logical step, to use whole killed HIV, could equally be precluded because it is uncertain that all virus particles can be inactivated.[143] Moreover, it has only worked poorly in animal testing, which automatically leads us to another considerable problem: the testing object.

Several studies have been undertaken in so-called long-term non-progressors (LTNPs). This minority group of people stays healthy for years without immune danger or need for treatment. Unfortunately, the results won from LTNPs that both CD4 T-helper and CD8 T-cytotoxic are needed for immunological control turned out to be not directly applicable to HIV vaccine development due to specific genetic similarities, only found in LTNPs.[144] (T-cytotoxic cells are also called killer cells that can seek out infected cells and destroy them.) Yet, the insight that an abnormally high amount of CD8 cells in LTNPs' blood successfully prevents them from symptoms of AIDS has pushed vaccine research forward.

Another interesting phenomenon is the group of so-called HEPs (HIV exposed, persistently seronegative). In a Kenyan and Nairobian cohort of sex

[141] Cf. ibid. 399.
[142] Cf. AIDS Vaccine Clearinghouse, "FAQ: Vaccine Science, Research & Product Development," 2006, 2, http://www.aidsvaccineclearinghouse.org/science_faq.htm (accessed 12 Jan. 2006).
[143] Cf. Gallo 1894.
[144] Cf. Peiperl and Buchbinder 168-169.

workers, HIV-specific CD8 T-cell responses have been detected. Unfortunately, it remains unknown, whether these responses are solely responsible for protection.[145]

Testing group number three are animals, preferably chimpanzees. A variety of other animal models has proven ineffective and inapplicable. The main reason for this is that HIV does generally not cause disease in other species than human.[146] This is undoubtedly a great luck for the spread and fight against the epidemic, which would otherwise surely grow extensively in its threat, scope and efforts to fight it. Notwithstanding, this exceptionality gravely impedes vaccine development. Although it has been found that chimpanzees can be infected with HIV, their bodies, however, have the ability to control the infection without treatment.[147] Moreover, chimpanzees are counted among an endangered species and, thus, are less available for research purposes. Macaques, therefore, are more commonly used and can be infected with the simian immunodeficiency virus (SIV), the 'monkey version' of HIV. Although these tests brought some results, the differences between HIV and SIV turned out to be too substantial to predict an effectiveness of a vaccine candidate in humans.[148] Nevertheless, high levels of CD8 cells in vaccinated monkeys have again been declared reason for infection control.

Despite these already sufficient scientific challenges, there is a variety of additional serious problems to overcome: HIV not only contains a vast genetic diversity within one individual body, it also contains extraordinarily high levels of viral genetic diversity, which is geographically distributed around the entire globe and constantly evolving.[149] This enormous global variability has already been subdivided into nine so-called 'clades' or families of HI viruses. Now, the question is whether a vaccine for the North American clade B also works in the sub-Saharan African clade C.[150] The answer has yet to be given.

Another problem is global inequity. Vaccines must neither be too expensive nor too difficult to transport, store and administer to find their way into resource-

[145] Cf. ibid. 169.
[146] At this point, it might be hypothetically thought through what could happen, if HIV could also be transmitted to animals and then back to people. This question will undoubtedly maintain its theoretical nature, but, nevertheless, it remains interesting to ask the 'what if'-question, especially when remembering what enormous challenges diseases such as Bird Flue (SARS) or Mad Cow Disease (MCD) posed to the world community and how unsatisfactorily they were partially solved.
[147] Cf. Peiperl and Buchbinder 169.
[148] Cf. ibid. 169.
[149] Cf. Garber, Silvestri and Feinberg 399.
[150] Cf. AIDS Vaccine Clearinghouse 7.

constrained settings.[151] IAVI, AVAC and others are fighting for this end. Yet, it remains a problem that pharmaceutical companies withdraw from vaccine research due to philanthropic pressure to put down vaccine prices and patents immediately after its discovery. Pharmaceutical companies are profit-oriented rather than philanthropic and also have to make sure that they can recoup their often gigantic drug development costs. Especially since the patent law controversy in this century and the huge amount of activist pressure on companies to drop prices and patents, which will be subject to larger scrutiny in Chapter Five, pharmaceutical companies might be deterred to seek for a vaccine. From an economic viewpoint, there is the partly legitimate fear of making insufficient profit with a vaccine. International pressure to drop the patents and prices of a vaccine would most likely force the company to give it away to the public for an economically unsatisfactory amount of money.

Furthermore, it remains a given that those populations most badly in need of vaccines, be it malaria, TB or HIV/AIDS, also happen to be those least capable of undertaking extensive research. Conversely, those who have the technical opportunities and resources happen to be those whose need for a vaccine is considerably smaller, as their continued existence does not depend on it.[152]

2.2.3.3 Daring a Glimpse towards the Future – Scientific Prospects

In mid-2004, 30 candidate vaccines were in early human trials in 19 countries on various continents. In 2007, one particularly promising candidate, named Ad-5, will be tested in a Phase IIb trial.[153] Ad-5 is a cold-causing adenovirus that has been disabled to avoid sickness. It carries sections of HIV genetic material into the body and has proven to trigger strong immune responses to HIV. AIDS Vaccine Clearinghouse reports that with reference to the current development and clinical trial pipeline, scientists estimate "that it will be six to ten years before the first AIDS vaccine is licensed for use in the United States and elsewhere in the world."[154] It must be added that the first generation of vaccines will not provide complete protection against HIV, but will rather slow or delay disease progression in people

[151] Cf. UNAIDS, "Vaccines," http://www.unaids.org/en/Issues/Research/Vaccines.asp (accessed 14 Jan. 2007).
[152] Cf. Peiperl and Buchbinder 184.
[153] Cf. AIDS Vaccine Clearinghouse 12-13.
[154] Ibid. 13.

who receive the vaccine prior to infection. Nevertheless, this shall not be underestimated in terms of slowing the spread of the disease.[155]

There remains a host of "unresolved scientific questions, ethical controversies, and practical barriers,"[156] each of which impede the process of a vaccine development and can cause severe delay. Reports of new, more promising products can appear at all time during trials and can mount in grave decisions as to whether continue or stop the current trial. Safety issues may also arise and further postpone the whole process.[157] Therefore, international initiatives, organizations and companies must collaborate closely and share information and new scientific insights. Laboratories and pharmacies must revert to their scientific responsibility and unique opportunities they have. For finding a vaccine, it is inescapable to focus on a common solution to a great health threat instead of acting independently and in profit-oriented competition.

In general, it can be said that the desolate 1990s, perhaps the dark age of vaccine development, are over now. Today, it appears that the vaccine research community has changed its views and is using failure as an impetus to exclude certain approaches rather than giving up. Scientists acknowledge that the search for a vaccine has taught them much about immunology and virology. Yet, scientists dissociated themselves from publicly attaching too high hopes on a close vaccine discovery. Firmly reckoning with a quick solution to the epidemic, which even in the case of an effective vaccine remains an illusion, holds the great danger of decreasing prevention commitment. A vaccine is far from being around the corner, and the consequences of anticipating and reckoning with the 'magic bullet' could impede all current efforts and undertakings.

Additionally, the pharmaceutical industry must not be mistaken for the IAVI or a philanthropic organization. Life-long provision and production of treatment has become an important and substantial part of this industry. A vaccine, an alleged 'one-time shot,' could be seen as an end and, therefore, a serious threat to this industry's existence and growth. Although it has been portrayed that the discovery of a vaccine does not automatically end the epidemic, it must be acknowledged that AIDS treatment has become an enormous apparatus and profitable branch of industry. As long as AIDS exists – and projections do not suggest an end to the disease – people

[155] Cf. ibid. 12.
[156] Peiperl and Buchbinder 187.
[157] Cf. Peiperl and Buchbinder 187.

will be dependent on treatment. The number of those in need of ARV therapy will not decrease and thus guarantees secure and sustained maintenance of this branch of industry. Yet, the question remains whether this impetus weighs heavier than the scientific obstacles to create a vaccine.

In the meantime, it might appear wiser to omit the option of a vaccine and focus on prevention and treatment – until the miraculous pill brings relief.

3. Botswana – Pioneer on the Virgin Territory of a Successful sub-Saharan AIDS Response

Every HIV/AIDS epidemic differs from country to country, from society to society and from culture to culture. There is not one big epidemic, but hundreds of small ones. We have already found out how many different factors and influences determine the extent and, consequently, the prevention and treatment potential. As Botswana has received global attention for its pioneering position in a successful HIV/AIDS response, it is wise to scrutinize the country's AIDS policy, its origins and what might make it possible or impossible to copy it in other countries. As every epidemic differs, the feasibility and efficacy of prevention and treatment strategies differ with it. Size of population, government determination, infrastructure, international support, religion, the country's economic (in)dependence are only a few, but highly central determinants that both fuel or cushion the spread of the virus.

A brief survey of Botswana's living conditions opens the quest for the country's AIDS architecture.

3.1 Botswana Country Survey according to the CIA World Factbook[158]

It is a cold and hard fact that Botswana belongs to a minority of African countries that could maintain a fifty-year long state of complete peace without any warlike interruptions. Botswana has been formerly known as the British protectorate of Bechuanaland. It changed its name on the 30th of September 1966, when the constitution of March 1965 was passed and made Botswana an independent parliamentary republic. The population of the country is 'roughly estimated' 1 639 833 million people who are living in an area of 600 000 square meters that the World Factbook comparatively describes as an area slightly smaller than Texas.

71.6% of the population are Christians, 6% are Badimo and the remaining 22% are not religious, unspecified or not listed due to unavailable data. The country has a literacy rate of 82.4% female and 76.9% male who are over 15 and can read and write. The president's name since April 1998 is Festus G. Mogae, who combines both the positions of chief of state and head of government in his office. Mogae has

[158] Cf. CIA, World Factbook, Botswana, updated 12 Dec. 2006, https://www.cia.gov/cia/publications/factbook/print/bc.html (accessed 16 Jan. 2007).

been indirectly elected again in October 2004, which the constitution already set as his last term.

Botswana is globally known for two very different things: diamonds and AIDS. It is a given fact that Botswana's economy, which "has maintained one of the world's highest economic growth rates since independence," is equally driven by diamond mining than its population is riven by AIDS. Botswana, once firmly positioned among the poorest countries in the world, ascended "through fiscal discipline and sound management" to a middle-income country with a per capita GDP of US$10 000 in 2005. Apart from mineral extraction (predominantly diamond mining), which constitutes one third of GDP and 79-80% of export earnings, people work in key sectors such as tourism, financial services, subsistence farming and cattle raising. Yet, Botswana also has an unemployment rate of 23.8%, which is believed to be underrated and rather closer to 40%. Although 30.3% of the population are reported to live under the poverty line, the people of Botswana can look back to "[f]our decades of uninterrupted civilian leadership, progressive social policies, and significant capital investments [that] have created one of the most dynamic economies in Africa." Notwithstanding, AIDS has done a lot of damage to these remarkable achievements. In 2003, UNAIDS shocked the world with an apparently overestimated HIV/AIDS adult prevalence rate of 37.3% – the highest in the world. Three years later, in 2006, UNAIDS seemed to rectify this figure, stating that HIV prevalence was assumed to be 24.1%.[159] The death rate, 29.5 per 1000, has already outdone the birth rate, which is said to be 23.08 per 1000. Higher infant mortality and a considerably lower life expectancy that dropped from 65 years in 1990-1995 to less than 40 years in 2000-2005 are steadily decimating the country's population.

Fortunately, one of Africa's most progressive and comprehensive HIV/AIDS programmes is avoiding that the worst comes to the worst. Various joint efforts have been undertaken to prevent the country from a greater disaster. These mammoth undertakings, and prior to them, the first attempts at walking, are worth a closer look.

[159] Cf. UNAIDS 2006, 18.

3.2 First Steps – The Gap between Intentions and Results

Freeing Africa from 'the 21st century plague' means changing it – changing it at its very roots. But international intervention and assistance also means partially 'westernizing' it. Botswana, with its effective government, small population and modern health provision could be deemed an obvious case of effective western prevention and intervention methods. Despite huge cultural gaps, Botswana differed and still differs from other African countries in that there is long peace, stable constitutional democracy and relative wealth. It was supposed that "if Western AIDS policies were capable of working anywhere in Africa they should have worked here."[160] And despite the still threatening situation and a lame initiation, the relative success of political devotion and international funding and treatment provision is hardly deniable. Yet, first attempts to enlighten Botswana society on HIV rather averted awareness and caution than raising it.

Botswana AIDS response is often divided into three phases, the first of which Suzette Heald describes as the "behaviour change and condom phase."[161] In 1988, first attempts of mass education and introducing the condom were made that appeared to having done more harm than help to the people and the disease's further development. International agencies, which had been brought in for advice in 1987, and the Botswana government had been oblivious to the people's cultural heritage and identity that was said to be standing in the way of averting an impending AIDS crisis.[162] Furthermore, hardly any evidence of morbidity or dying was to be seen anywhere at that time. Thus, widespread disbelief was a common reaction.[163] It appeared that the word 'prevention' in prevention methods was neither understood nor taken seriously due to a lack of actual evidence of dying. Moreover, southern African sexual culture was another hurdle to get over. What had been described as widespread disbelief – often referred to as 'AIDS denialism' – can also be interpreted as a defense mechanism, as the promotion of condom use must be handled with sensitive care in certain cultures: the use of condoms was rashly connected with immorality and an encouragement to promiscuity in Botswana, which triggered

[160] Suzette Heald, "Abstain or Die: The Development of HIV/AIDS Policy in Botswana," Cambridge University Press, 2005, 5, http://journals.cambridge.org/production/action/cjoGetFulltext?fulltextid=id349343 (accessed 14 Jan. 2007).
[161] Heald 5.
[162] Cf. ibid. 5.
[163] Cf. ibid. 5.

massive uproar and emotional outrage – particularly in the case of women.[164] In contrast to a male, often well-reputed tradition of promiscuity, women had often been reported to be scared of appearing promiscuous themselves when asking their partners for using condom. Moreover, how can a wife ask her apparently monogamous husband for condom use without indirectly insinuating that he is not faithful?[165] It has also been omitted that condom use has been designed and relatively effective in western countries where recreational sex is largely practised. Yet, Botswana, as many African countries, has a very strong procreational aspect in sexual intercourse that was standing in the way of condoms. According to Tswana (or Setswana) belief – with 79% the greatest ethnic group in the country – condoms suppress the flow of blood and connection that were widely deemed as health giving.[166] Hence, leaders of spirit churches and traditional doctors interpreted the condom as disease bringing rather than disease averting. In their eyes and the eyes of local communities, which were not incorporated in the educational prevention effort, the modern state was increasingly associated with sexual laxity and disease.[167] This stance was clearly opposed to Tswana morality. Paradoxically, it must be concluded that this traditional, elderly opposition, which was originally meant to avert the modern life disease, has actually paved its way.

After 1995, the majority of international donors pulled out, stating that the country's wealth could well enough provide for its own AIDS programme. Lack of political will and the strength of stigma left Botswana's AIDS response in a state of apathy, leaving huge gaps of information. Apart from the fact that no one foresaw such a mass dying at that time, it may be concluded that the economic power of Botswana – namely the diamond industry – was never put at risk by a population collapse, as mining was/is predominantly done by a minority.[168] Moreover, society remained rather blind to the severity of the impending epidemic. The absence of procedures for recording deaths further decreased direct evidence of rising mortality, at least until the mid-to-late nineties.[169]

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[164] Cf. ibid. 5.
[165] Cf. Tabitha T. Langen, "Gender Power Imbalance on Women's Capacity to Negotiate Self-Protection against HIV/AIDS in Botswana and South Africa," *African Health Sciences*, Vol. 5, Sept. 2005, http://www.bioline.org.br/request?hs05034 (accessed 25 Dec. 2006).
[166] Cf. Heald 6.
[167] Cf. ibid. 6.
[168] Cf. ibid. 7.
[169] Cf. ibid. 7.

Suzette Heald criticizes the western shaped AIDS prevention design by highlighting a cultural challenge that could not be met. She dares to wonder why the word 'stigma' is not publicly replaced by the word shame, emphasizing once more the discrepancy between Tswana beliefs and the created picture and cultural implications of the disease.

> But here, we are in a hall of mirrors and it is important to ask how far the 'special' status of HIV, imported by the West, with its association with 'perverted sexuality' and mandatory emphasis on confidentiality has not coalesced with indigenous ideas to magnify the negative aura surrounding the disease?[170]

Fortunately, despite the portrayed damage, Botswana AIDS policy experienced a complete change in the second phase, when ARV roll-out began. Though burdened with a lame initiation, the country's AIDS policy was to become an exemplary African success story that will now be scrutinized.

Despite the recognition of Heald's analyses and the legitimacy of her theses, it must be asked whether her neo-colonial impression of an uninfluential and paralyzed country which is helplessly bombarded with a western AIDS prevention that is predominantly doing damage is not slightly overdrawn. The issue of harmful international help and the danger of misconceptions will be touched upon again in 4.5.

3.3 The Blueprint of Botswana's AIDS Programme Architecture

Botswana's AIDS programme landscape underwent a massive change in 1999/2000. It made the country's response to the epidemic hardly recognizable. Botswana has been exclusively flooded with partnerships, NGOs and a host of various governmental programmes and initiatives, which have become challenging to survey and grasp in their entirety, function, impact and hierarchy. This dramatic experiment – still unique in its kind on the African continent – was meant to succeed and thus give heart to the rest of the world. It has transformed Botswana into "a land of acronyms, with a mosaic of programmes and agencies criss-crossing one another."[171] Together they have been trying to reduce the impact the virus had on the approximately 265 205 and their families and friends. With a population of 1.7 million, these 265 205 people constitute an overall HIV prevalence rate of 17.1% and

[170] Ibid. 12.
[171] Heald 8.

an adult prevalence rate of 24.1%, the second highest in the world after Swaziland.[172] Yet, according to the 2005 Botswana Antenatal (Sentinel) Surveillance Survey, the country's HIV prevalence of 33.4% in women aged 15-49 years remains the highest in the world.[173] In 2006, by the end of June, 51 000 children had been registered with the national orphan care programme.[174] One year prior to these figures, the Botswana AIDS Impact Survey II (BAIS II) estimated a number of 125 233 orphaned children, hardly daring to speak of projections that forecast a number of 200 000 orphans by 2010.[175]

At the forefront of many of these initiatives has been Botswana President Festus Mogae, who emerged as a leading figure, symbol and political pioneer in the country's and continent's AIDS response. He chairs the highest level coordinating body, the National AIDS Council (NAC), which is mandated to advise the government on HIV/AIDS matters and has representatives from 17 sectors including civil society, the public and private sector. It is predominantly concerned with the Vision 2016 goals, which are guiding other initiatives and as an economic, social, political, cultural and spiritual blueprint seek for an AIDS free Botswana by the 50th anniversary of independence.[176] Since 1998, the National Assembly Select Committee on AIDS works to ensure the priority of the AIDS fight on the government's political and social agenda. A broad overview should be achieved via sector HIV/AIDS committees that consist of the various ministries' HIV/AIDS committees and are represented by NGOs, private and development partner sectors. These sector committees pursue the issue of AIDS in areas such as finance, labour, law, ethics, trade, sports and recreation, wildlife and tourism.[177] The National AIDS Co-ordinating Agency (NACA) works directly under the NAC and the Office of the President. With its broad mandate, the NACA can be described as an executive power in charge of facilitating programme implementation, mobilizing resources, strengthening institutional capacities and monitoring and evaluating programmes. Prevention, information, education, routine HIV testing is co-ordinated and implemented by the Department of AIDS Prevention and Care (DAPC), which is

[172] Cf. Jenni Fredriksson-Bass and Annabel Kanabus, "HIV and AIDS in Botswana," revised and updated by Rob Nole, 2006, 1, http://www.avert.org/aidsbotswana.htm (accessed 15 Jan. 2007).
[173] Cf. ACHAP Review 2005, 5.
[174] Cf. ACHAP 2006/2007, "AIDS in Botswana," http://www.achap.org/aids/html (accessed 15 Jan. 2007).
[175] Cf. ACHAP Review 2005, 5.
[176] Cf. ibid. 6.
[177] Cf. ibid. 8.

also responsible for the country's ARV treatment. Commissioners lead the District Multi-Sectoral AIDS Committees (DMSACs), which include the heads of decentralized departments, medical officers, NGOs and traditional authorities.[178] Last, but not least, Masa (engl. New Dawn), the country's proud and exemplary free ARV treatment programme, provides therapy for all qualifying citizens that have a critical CD4 count, usually below 200 per millilitre.[179] (Healthy, HIV-negative people have a CD4 count of 500-600 per millilitre.)

Obviously, this monstrous apparatus is a remarkable and outstanding demonstration of the country's and particularly the president's commitment. Yet, it provokes the critical juxtaposition of bureaucracy and efficacy. It provokes the question in how far the first hinders the latter. The African Comprehensive HIV/AIDS Partnership (ACHAP) is not lying when considering these government structures as 'essential services'. But Heald is probably not lying either in her evaluation of the side-effects of this tremendous bureaucratic construction. According to her analyses, the immediate effects were 'turf wars' between the different agencies and ministries.[180] Apart from rather unquestioned stifling side-effects of bureaucratic regulation, personnel competition could also be observed inside the new areas, which were criticized for seeking too similar goals.[181] The great shortage of staff was another serious consequence of the new implementations, which burst Botswana's quite well-established health care system. A 30% increase in doctors and an almost 200% increase in pharmacists in 2002 built a long-term challenge to the country. This lack of trained personnel had to be compensated by international agencies and triggered something Heald calls 'the downside of philanthropy': as their salaries were three to ten times higher than Botswana salaries, the government health provision was heavily burdened with the costs the great density of international employees caused.[182]

[178] Cf. ibid. 8.
[179] Cf. Heald 11.
[180] Cf. ibid. 11.
[181] Cf. ibid. 8.
[182] Ibid. 11.

3.4 ACHAP – Gates, Merck and the Government Spearhead the Country's Response

Botswana and AIDS are hard to separate from international intervention. Botswana is pioneer, model and living proof for what is possible and what can be mobilized and achieved in African AIDS-stricken countries – with international help from giant foundations, large pharmaceutical companies and a stable democracy that does not deter international agencies, one must add. The decisiveness and commitment of the Mogae government have never been questioned. But neither can it be questioned that Botswana would look considerably more rampaged without international help. The second, successful phase of the Botswana AIDS response – initiated and dominated by the roll-out of antiretroviral medicine – is deeply entwined with western support and western design.

The African Comprehensive HIV/AIDS Partnership (ACHAP), launched in 2000, is a perfect example of an international collaboration. ACHAP is a public-private development partnership between the government of Botswana, the Bill and Melinda Gates Foundation and Merck & Company Incorporated/the Merck Company Foundation.[183] And it has turned the tide of the disease tremendously. Yet, prior to the launch of this collaboration, activist groups and the WHO's '3 by 5' initiative paved the way for the treatment campaign. Additionally, the mid-term power transfer from President Masire to President Mogae in April 1997 can surely be deemed as a key date in Botswana AIDS policy – though it was not until August 1999 that Mogae launched a new campaign.[184] After he enlisted a number of overseas partners, ACHAP was founded in 2001 to spearhead the country's to date unique treatment programme, the aim of which was not solely humanitarian: apart from prolonging the lives of the infected and decrease mortality, therapy and treatment provision should systematically break the cycle of stigma and denial.[185] The government put considerable efforts, hopes and resources behind the initiative, clearly aiming at a new openness towards the disease and, consequently, an increase in testing.[186]

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[183] Cf. ACHAP Review 2005, 1.
[184] Cf. Heald 7.
[185] Note that in 2000, Botswana still was in a relative state of denial and ignorance. Typical addressed problems such as stigma and discrimination are usually consequences of a society that is at least partially tested and aware of their sero-status. Botswana, at that stage, was still in the denial phase, which logically precedes stigma and discrimination.
[186] Cf. Heald 7.

After a public announcement of the partnership in July 2000, both The Bill and Melinda Gates and Merck Company Foundation pledged US$50 million each.[187] Additionally, Merck & Company Incorporated pledged the two ARV drugs Stocrin and Crixivan to the government of Botswana up to 2005.[188] After the ACHAP Board of Directors had been appointed, an ARV strategy developed and officially approved, the country's ARV programme Masa was launched by President Mogae on 1st December 2001. The enthusiastically envisaged aim to put at least one fifth of the estimated 110 000 needy people on Masa by the end of 2002 soon turned out to be unattainable. Yet, in 2002, the completion of 20 ARV treatment clinics and two laboratories could be realized that predominantly aimed at targeting pregnant women with AIDS, HIV-positive child in-patients, HIV-positive people with TB and adult in-patients with AIDS.[189] Moreover in 2002, major programmes such as Teacher Capacity Building, Condom Social Marketing and Free Distribution and the Botswana HIV Response Information System were launched. Anyhow, by January 2003, 3 200 out of the originally targeted 19 000 patients were on antiretroviral therapy – a great backlash for a country which first experienced that putting someone on treatment is a lengthy process. It has not been considered how much time counselling, testing, blood screening, counting the CD4 cells of the patient and finally enrolling him or her in the programme would actually take.[190] Apart from that, the shortage of staff impeded the process of treatment scale-up considerably. The new challenges demanded more personnel, but at the same time, the epidemic was draining skilled people, leaving the country with the necessity to recruit people from poorer parts of Africa and import work forces from India and Cuba.[191]

By that time, pressure mounted on the government: for the whole of southern Africa, Botswana served as laboratory experiment. The country's success or failure would determine further proceedings of many other countries in the fight against AIDS. The prerequisites for success have never been that good before in any African country, and Botswana was already about to be publicly announced as a bad example that would deter foreign investors and donators. Yet, during 2003, a gradual rise in treatment could be observed, reaching around 8 000 people at ten clinics by the end of the year. Finally, reluctance and inertia of the Botswana people seemed to level

[187] Cf. ACHAP Review 2005, 11.
[188] Cf. ibid. 11.
[189] Cf. Fredriksson-Bass and Kanabus 5.
[190] Cf. ibid. 6.
[191] Cf. ibid. 6.

off in May 2004 when 24 000 people (14 000 on antiretroviral treatment) had been enrolled in the programme and flooded the country's already bursting testing sites.[192] By June 2005, a respectable number of 43 000 people were partaking in the programme, mounting even to the latest available figure in September 2005 of 54 378 people.[193] Masa received excellent responses at that time, and the public eye was privileged to witness a mortality decline. At that time, Botswana was in such a desolate state that the burial of old people (instead of young people) brought a feeling of relief and returning normalcy.[194]

Burdened with a high responsibility due to the country's dependence on the two delivered drugs and donations, The Bill and Melinda Gates Foundation and the Merck Company Foundation pledged an additional funding of US$13 million to the government of Botswana in late 2005.[195] Another pledge of continued donation by Merck & Company Incorporated of Stocrin and Crixivan up to 2009 was equally assured.[196]

Despite the great success of having put 85% of people in need of treatment on the ARV programme, Botswana still faces tremendous challenges. The missing 15% are very likely to be dying without intervention, and all of those enrolled must continue to receive the drugs and monitoring services until the end of their shortened lives. Hence, the unanswered question is: who will provide the drugs when Merck & Company, Incorporated decide to pull out in 2009 after nine years of drug donation?

Moreover, people who develop resistance to their medication are dependent on more expensive and more complex second-line alternatives.[197] Of course, Masa must be further decentralized to reach out to the more constrained, rural settings in the country. Additionally, antiretroviral treatment cannot solve Botswana's AIDS crisis, when new infections are not simultaneously averted. Thus, prevention efforts, which the country has already been bombarded with, must be scaled up, too.[198]

[192] Cf. ibid. 6.
[193] Cf. ibid. 7.
[194] Cf. ibid. 7.
[195] Cf. ACHAP Review 2005, 11.
[196] Cf. ibid. 11.
[197] Cf. Fredriksson-Bass and Kanabus 8.
[198] Cf. ibid. 8.

3.5 Why the Example of Botswana Cannot Easily Be Reproduced

Botswana has surprised and impressed not only the international community, but also predominantly itself. The country is and remains the sub-Saharan AIDS response miracle, inevitably tempting neighbouring and other equally hit or poor countries to copy what this once doomed country has achieved. It is already proven that other countries are following the approach. Research presented at the conference in Rio de Janeiro showed that ARV treatment projects have been set up "from the scratch" in Tanzania, Kenya, Mozambique, Rwanda and South Africa.[199] UNAIDS reports that in sub-Saharan Africa, the number of people receiving ARV treatment increased from 100 000 in 2003 to 810 000 in 2005.[200] This can surely not be traced back to the Botswana blueprint and rather is a sign of a modified, advanced treatment access. Yet, most of these increases took place in Botswana, Kenya, Uganda, Zambia and, to the largest extent, in South Africa.

Botswana remains the undisputed pioneer on the virgin territory of a successful sub-Saharan AIDS response. And this response cannot be merely reduced to the antiretroviral treatment campaign, which is understandably focused on most of the time. Botswana also distributed 6 495 300 free condoms via 1875 dispensers in the ten districts of the country.[201] Together with Brazil and the United Nations Development Programme (UNDP), Botswana managed to elaborate its Teacher Capacity Building Project for HIV/AIDS Prevention (TCB). This project aims at installing HIV preventive values and attitudes in teachers and students and also contains a distance education programme that utilizes both television and information technology to reduce the impact of the disease on the education sector.[202] Altogether, 137 schools have been provided with transmission equipment, and the installation process is still going on.

Taking all this to heart leaves little doubt: this country has achieved great things, miracles perhaps. Yet, while reflecting on the way projects have been erected, it dawns on us that successful AIDS responses vary culturally, economically and individually from case to case. The complexity of AIDS does not allow for simple 'repeating' or 'copying'. Of course, it would be foolish of similar countries to remain

[199] Cf. Ania Lichtarowicz, "Botswana Praised for AIDS Fight," BBC News, 26 July 2005, http://news.bbc.co.uk/1/hi/world/africa/4716553.stm (accessed 17 Jan. 2007).
[200] Cf. UNAIDS 2006, 9.
[201] Cf. ACHAP Review 2005, 20.
[202] Cf. ibid. 17.

ignorant of what succeeded in Botswana. But it certainly appears equally foolish not to consider the prerequisites that set the pegs for success in Botswana. In a nutshell, it appears legitimate to downsize the success to three key points that might be described as a trilateral approach recipe: domestic resources, international help and political commitment.

It seems that if any of these three listed prerequisites had been missing or weaker, the country's success would not have been that great, globally astounding or even possible. The first vital presupposition, the country's domestic resources, allowed the government to pay foreign doctors, medication, domestic workers and install testing, counselling and treatment sites. Botswana's almost fifty-year-long peace, its stable democracy as well as its large diamond industry ensured the country's relative wealth and thus paved the way for the well-established health care infrastructure. Special testing and treatment sites had yet to be installed, of course, but nonetheless, Botswana's health system was far above sub-Saharan African standard.

It can surely be claimed, too, that Botswana's special state of peace and democracy made things considerably easier for international donors. Of course, the country's HIV prevalence rate was astonishingly high and the country's impending extinction pressured the world to act. Yet, the question remains whether western (mostly American) donors and companies would have undertaken similar efforts in the case of a civil war-torn military regime with similar HIV rates. Perhaps it was easier or appeared more logical to prevent a country from losing its wealth than helping a poorer African country that has never made it so far. Anyhow, there is no question that the country's peace, democracy and commitment made the decision to help and inevitability to intervene substantially easier – particularly as Botswana already provided the necessary financial and health care resources and was additionally threatened with complete extinction. Without the two antiretroviral drugs donated by the Merck & Company, Incorporated and the pledged US$50 million from each the Bill and Melinda Gates Foundation and Merck in 2000, things would look very different in Botswana today. Additional donations by UNDP, NGOs and PEPFAR can be deemed vital for the success of the treatment roll-out and its maintenance. Moreover, collaborations with Brazil and the inception of Botswana-American partnerships pushed the efficacy of projects further ahead. BOTUSA, the collaboration of the Botswana government and the US Centers for Disease Control

and Prevention (CDC), which aimed at working on public health research and programmes to combat TB and AIDS, is an exemplary co-operation that is today part of PEPFAR.[203]

Yet, this extensive international help would probably not have come into being without a trustworthy, committed and ambitious partner to work with: Botswana President Festus Mogae. His election surely marked a turning point in the country's AIDS response architecture. His decisiveness and publicly demonstrated devotion brought the AIDS response tremendously forward and served as a role model for responsibility that is to remain the counterpart of many African countries, particularly South Africa. Mogae also became the first president to publicly admit his fear of being HIV-infected in June 2003. The test turned out to be negative.[204] Six months later he backed a full HIV routine testing programme and received harsh criticism from human rights organizations.[205] Nonetheless, he carried it through. Today, routine testing is believed to have massively contributed to the decrease in mortality, denial and stigma.

Conclusively, to close the Botswana chapter, two conclusions can be drawn: first, Botswana must be learnt from. And second, a simple repetition of the Botswana AIDS programme will be hard or impossible for most other sub-Saharan African countries, as the prerequisites that paved the way for universal treatment access and extensive prevention in Botswana are often missing. Yet, political commitment appears as a magnet for international donors in the Botswana success story. Many international organizations are willing to act and intervene. But they will need some conscientious, devoted and enthusiastic political partners to work with. They will need leaders who demand foreign help because *they* want *their* country to change – and not because foreign donors and organizations want it in the first place. This must inevitably be the first step towards a successful and, particularly, a culturally adapted response. International development aid and intervention without indigenous collaboration bears a certain dangerous potential and can do more harm than help, as shown in 3.2 (also see 4.5).

[203] Cf. Fredriksson-Bass and Kanabus 2.
[204] Cf. Heald 11.
[205] Cf. ibid. 11-12.

4. South Africa – The most Affected Nation is (Not) Struggling for its Survival

Despite the country's abundant supply of natural resources and well-developed legal, financial, communication and transport sectors, HIV/AIDS is threatening the population, its wealth, economy and existence at the core. In 2005, 18.8% of adults (15-49 years) were estimated HIV-positive. In a population sized 44 million, this makes up an estimated 5.5 million people living with HIV, making South Africa's epidemic one of the worst in the world.[206] Although a few other countries may have more daunting HIV prevalence rates, South Africa accounts for the highest number of people living with the disease worldwide. Additionally, despite several recent increases in treatment access, there is no evidence of decline in sight yet. AIDS rates are expected to rise sharply until 2010, which would result in one million orphaned children by 2015.[207]

August 2003 surely marks a turning point in South African AIDS policy, when the government bowed to international and public pressure and initiated an extensive ARV programme.[208] Currently, South Africa accounts for one quarter of all people receiving antiretroviral therapy in sub-Saharan Africa, with an increase from fewer than 5000 people at the beginning of 2004 to an astounding 190 000 by the end of 2005.[209] Yet, despite the success, this increase leaves 800 000 of the estimated one million in need of antiretroviral therapy untreated.[210] This also means that one seventh of the globally estimated seven million people in need of therapy live in the country South Africa.

South Africa's history of apartheid, the almost uniquely high number of people living with HIV, the steep increase in treatment roll-out, but also the government's reluctant and short-sighted attitude towards ARV treatment, prevention and the upcoming threat to its citizens make South Africa a special case. Probably no other country in the world will face comparable challenges and hardship in the fight against HIV/AIDS and for the maintenance of its economic power and its survival.

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[206] Cf. UNAIDS 2006, 17.
[207] Cf. Nicoli Nattrass, *The Moral Economy of AIDS in South Africa* (Cape Town: Cambridge University Press, 2004) 13.
[208] Cf. Nattrass 13.
[209] Cf. UNAIDS 151-152.
[210] Cf. ibid. 17.

A brief glimpse into the composition of the country provides the necessary background for the discussion and open the chapter to one of the most interesting, but most demanding and deterring current AIDS epidemics. South Africa's long way to freedom – the transition from the repressive apartheid regime to a democratic system in the 1990s – will provide first answers to the belated HIV/AIDS intervention and the current size of the epidemic.

4.1 South Africa Country Survey according to the CIA World Factbook[211]

South Africa has always been highly attractive for immigrants and, in some cases a more appropriate expression, invaders. The Dutch settlers, the Boers, were forced to trek north to found own republics when the British seized the Cape of Good Hope area in 1806. The country's abundant natural resources were discovered early, when diamonds and gold were first unearthed in 1867 and 1886. The discovery of these great resources cannot necessarily be deemed an advantage for the country, as it spurred wealth, but immigration and subjugation of the country's native inhabitants, too. In the attempt to resist the British encroachments, the Boers were at pains to defend their "own", but were defeated in the Boer War 1899-1902. From there on, a policy of a separate development of the races, apartheid, reigned the Union of South Africa and found its end in the 1990s, when the black majority came into rule.[212]

South Africa is one of the richest countries in Africa. It shares borders with Botswana, Mozambique and Namibia, completely surrounds Lesotho and partially Swaziland. Whereas Lesotho's HIV prevalence remains stable at high levels of 23.2%, Swaziland is struggling with one of the highest rates in the world: 33.4%.[213]

The median age of the 44 million South Africans is 24 years, with a life expectancy of 42.73 years and an infant mortality death rate of 60.66 deaths per 1000 births. Currently, the general death rate of 22 deaths per 1000 is outdoing the birth rate of 18.2 births per 1000.

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[211] Cf. CIA, World Factbook, South Africa, updated 19 Dec. 2006, https://www.cia.gov/cia/publications/factbook/print/sf.html (accessed 22 Jan. 2007).

[212] These are already highly important facts for the development of the disease in South Africa. On the one hand, it points to the fact how early South Africa was colonized and influenced by western countries. On the other hand, it throws a cautious light on the disenfranchisement of the indigenous: their struggle for liberation in the 1980s did not leave enough room to highlight HIV/AIDS, which had already been on the march.

[213] Cf. UNAIDS 2006, 18.

South Africa's ethnicity consists of 79% black Africans, 9.6% whites and 8.9% coloured, i.e. predominantly Indians. The country has a great religious diversity, which consisits of 11.1% Zion Christians, 8.2% Pentecostal/Charismatics, 7.1% Catholics, 6.8% Methodists, 6.7% Dutch Reformed, 3.8% Anglicans, 1.5% Muslims and 36% other Christians. South Africa's languages appear equally manifold: 23.8% speak IsiZulu, 17.6% IsiXhosa, 13.3% Afrikaans, 9.4% Sepedi, 8.2% English, 8.2% Setswana and 7.9% speak Sesotho. The diversity in language, ethnicity and religion has made the design and implementation of standardized prevention programmes very difficult. The literacy rate, which by definition includes those who are over 15 and can read and write, is 86.4%.

South Africa's official, administrative capital is Pretoria, though Cape Town can be referred to as the legislative capital and Bloemfontein is known as the judicial capital. Although South Africa became independent from the UK in 1910, it was not until 1961 that the country became a republic, following a referendum in 1960. The current constitution, certified by the Constitutional Court, was signed by then President Nelson R. Mandela on 10 December 1996 and has been implemented in phases. Since June 1999, Nelson's former deputy, Thabo Mbeki, is both chief of state and head of government and will not be eligible for a third term after his re-election in 2004 by a 100% vote of the National Assembly. His party, the African National Congress (ANC), originated in 1912 and was founded on the democratic principles of its 1959 Freedom Charter. After the oppressive white minority regime, the National Party (NP), had forbidden the ANC in 1960, it reverted to a rather symbolic, armed liberation struggle.[214]

The end of the Cold War and the decolonization of Namibia in 1989, inner economic problems and international sanctions forced then President Frederik Willem de Klerk to release political prisoners and legalize their parties again.[215] In 1990, ANC and NP agreed upon a new political order that would set an end to the 46-year-long European induced racial segregation and economic exploitation of South Africa. The following transition took place in a climate of politicized ethnicity and violence.[216] A truth commission (1996-98) was supposed to provide reconciliation with the country's bitter past. In the 2004 elections, 69.7% voted for

[214] Cf. Ulf Engel, "Republik Südafrika nach dem Machtwechsel," *Informationen zur politischen Bildung*, Nr. 264, Ed. Bundeszentrale für politische Bildung [München] 1999, 45.
[215] Cf. ibid. 45.
[216] Cf. ibid. 46.

the ANC, providing them with 279 out of 400 seats in the National Assembly. The NP withdrew from the political landscape in 1996, when it became obvious that the party's reputation as an heir to the apartheid regime became increasingly disadvantageous.[217] Its reformation, the New National Party (NNP), has been equally unsuccessful in the last elections and only made up 1.7% (7 seats). Since 1997, another populist alternative is the Unity Democracy Movement (UDM), which only 2.3% voted for in the last elections.

Economically, South Africa has rich supplies in natural resources, which makes it the world's largest producer of gold, platinum and chromium. Well-developed financial, communication, transport and energy sectors as well as a modern infrastructure ensure an extensive delivery of goods. South Africa's stock exchange ranks among the ten largest in the world. Yet, an unemployment rate of 26.6% and a lack of economic empowerment of disadvantaged groups as a heritage from the apartheid era weigh heavily on the country. A big transnational issue relevant to the HIV/AIDS crisis is the trafficking of men, women and children for the sake of forced labour and sexual exploitation. Both are oil in the fire of the disease and its spread. South Africa serves as source, transit and destination country, trafficking women and girls internally as well as on to European and Asian countries. The country has been criticized for its failure to address this problem successfully.

4.2 AIDS Policy in South Africa: A Short History of Long Mismanagement

"The history of AIDS policy in South Africa is a sorry tale of missed opportunities, inadequate analysis, bureaucratic failure and political mismanagement,"[218] Nicoli Nattrass writes in her book *The Moral Economy of AIDS in South Africa*. In fact, it is hardly deniable that the country's recent success of increased antiretroviral treatment access from 5000 in 2004 to 190 000 in 2005 is ambivalent: on the one hand, it is a highly welcome development that the government achieved this tremendous increase. Yet, on the other hand – and this refers to the Nattrass quote – it is alarming that the country with the world's biggest population of people living with HIV/AIDS dares to delay its provision of treatment to such extents. Of course, every success in

[217] Cf. ibid. 46.
[218] Nattrass 41.

the provision of therapy simultaneously raises the question of why it had not been possible earlier. Yet, in the particular case of South Africa, this is different.

As already outlined in the country survey, South Africa's turbulent past and transitional political landscape played a major role in the further development and spread of the virus. The virus literally hit its host when it was mostly distracted and inattentive. South Africa's political circumstances hardly allowed for an adequate response to a newly evolving disease, the extent of which was not yet foreseeable. Hence, it was not until the 1990s that HIV/AIDS was paid increasing attention – more than eight years after the first case was diagnosed in 1982.[219] As described in several other epidemics, too, the disease slowly left the homosexual framework and crossed over into the heterosexual field. In 1990, it was estimated that 74 000-120 000 people were living with HIV/AIDS. One year later, when the number of actually diagnosed heterosexual HIV cases equalled the number of homosexual ones, it slowly dawned on health professionals and politicians what future direction the epidemic would take.[220] The fact that the apartheid government's attempts to promote condom use were not undertaken until the diagnosis of the first heterosexual HIV case was interpreted as racist and politically motivated due to prejudices against homosexuals and the support for Calvinistic morality and prudishness.[221] Apart from that, it was stated that even a committed AIDS plan would have been doomed, as the de Klerk government was devoid of any credibility or legitimacy among South Africa's black population.[222] Nevertheless, several AIDS information, training and counselling centres as well as a free National AIDS Helpline were installed until 1992. Unfortunately, these interventions did not suffice to prevent a further increase by 60% in 1993.[223] Also Nelson Mandela's addressing the National AIDS Committee of South Africa (NACOSA) in 1992, the educative Soul City prevention programme, founded in 1994, or the International Conference for People Living with HIV/AIDS held in South Africa in 1995 could not halt or reverse the epidemic. On the contrary: the HIV prevalence rate among pregnant women rose from 12.2% in 1996 to 17.7% in 1997.[224] In the following year, the Treatment Action Campaign (TAC) was born from missing political leadership to substitute government action

[219] Cf. Graham Pembrey, "HIV/AIDS in South Africa," 2006, 1, http://www.avert.org/aidssouthafrica.htm (accessed 25 Jan. 2007).
[220] Cf. Pembrey 1.
[221] Cf. Nattrass 41.
[222] Cf. ibid. 41.
[223] Cf. Pembrey 1.
[224] Cf. ibid. 2.

and constitute a public voice for the afflicted. Later that year, then Deputy President Thabo Mbeki launched the Partnership Against AIDS and stated publicly that 1500 HIV infections occurred in South Africa on a daily basis.[225]

It should be noted that NACOSA's AIDS plan, developed in September 1993, was reported to be comprehensive and progressive, embracing sexual rights of women and involving infected people in AIDS policy development. Even a multi-sectoral structure with implementing units in key ministries such as health, welfare, education and defense was earmarked.[226] Unfortunately, political activists and trade unionists responded poorly to the initiatives, predominantly due to "political and organizational imperatives (that) effectively marginalized the AIDS agenda."[227] The national and international media was fixed on a historic social and political upheaval that hardly provided space for the combat of a disease which appeared less important than ethnic liberation. In the meanwhile, AIDS sneaked in the distracted new country, already planning to haunt the predominant black population with the next plague. In 1999, HIV prevalence among pregnant women who attended antenatal clinics rose to 22.4% and increased further before culminating in 2005 to 30.2%.[228]

Although South Africa's eleven official languages and various dialects massively impeded prevention, there were also other problems at hand. Sparsely populated rural areas lacked infrastructure and stood in the way of awareness campaigns.[229] Moreover, despite the welcome fact that the new ANC government quickly adopted the Committee's AIDS Plan in 1994, their failure was described as allocating responsibility to the health ministry rather than the president's office. According to Nattrass, this made AIDS a health problem instead of a social problem, thus "limiting the potential for a multi-sectoral co-ordinated response."[230] Furthermore, the new government was occupied with bureaucratic restructuring. The so-called 'independent Bantustans' and 'homelands' – inherited from the old apartheid regime – were absorbed into nine self-governing provinces with own financial capacities.[231] Yet, despite the legitimacy of this burden, Nattrass argues that after a few years, these excuses for an insufficient response are "increasingly

[225] Cf. ibid. 2.
[226] Cf. Nattrass 43.
[227] Ibid. 43.
[228] Cf. Pembrey 2.
[229] Cf. ibid. 4.
[230] Nattrass 43.
[231] Cf. ibid. 44.

tired."[232] In October 1998, South African health minister Dlamini-Zuma denied antiretroviral Zidovudine to infected pregnant mothers and announced that all planned pilot projects be discontinued.[233] This happened on the grounds that she considered treatment unaffordable and ineffective for the fight against the epidemic. This assumption is oblivious to the fact that medical and social researchers proved that paediatric costs of HIV-infected children offset those of mother-to-child transmission prevention (MTCTP).[234] Unfortunately, it appears that there is a major mistake in logic: it might be true and proven that treating opportunistic infections of HIV-infected babies and children is more expensive than a short antiretroviral regimen of MTCTP. Yet, this logic is based on the assumption that the government would actually treat the opportunistic infections. But at that stage, the government did not appear to be willing to pay for any kind of antiretrovirals due to affordability problems and scientific doubts.

In 2001, the HIV prevalence rate of pregnant women who consulted antenatal clinics was 24.8%, and the government still refused to provide antiretrovirals for MTCTP.[235] At that stage, TAC decided to take the government to court. Their goal was to reach a court ruling that made government provision of nevirapine to pregnant HIV-infected mothers mandatory and available in all state hospitals and clinics.[236] Nevirapine had been proven effective and economic in minimizing HIV transmission to babies. A few doctors had already started to contact NGOs to ask for provision of nevirapine due to government reluctance. The government continued arguing that nevirapine poses still unanswered questions of toxicity but was ruled against in favour of TAC.[237]

Despite the constitutional court ruling, the government remained rather hesitant about treatment access and did not approve a plan to make antiretrovirals publicly available until 2003. In mid-2003, MTCTP roll-out was criticized as 'chaotic' by the South African newspaper *Mail & Guardian*, which wrote that it was only doing well in Western Cape, Gauteng and KwaZulu-Natal.[238]

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[232] Nattrass 44.
[233] Cf. Nattrass 47.
[234] Cf. ibid. 47-48.
[235] Cf. Pembrey 2.
[236] Cf. ibid. 4.
[237] Cf. ibid. 4.
[238] Cf. Nattrass 48.

4.3 The South African Government: Secret Ally of the Virus?

In retrospect, every epidemic and its respective response contains a lot of mistakes, miscalculations, wrong predictions and analyses. Yet, the way the South African government reacted to a clearly rising and increasingly threatening disease must leave outsiders puzzled and bewildered. It has been frequently reiterated that South Africa was heavily occupied with the political transition and social upheaval, with the formation of a democratic and 'more' just state and the restructuring of the old apartheid system's bureaucracy. Yet, these challenges and burden underlie a certain time limit and cannot be used or abused as eternal excuses. The South African government acted with an intransigence and resistance that make one wonder whether state officials were at all interested in fighting the virus. The excuse of bureaucratic restructuring was followed by a long discourse of unaffordability, which then burst into a debate over poverty and toxicity of antiretrovirals and eventually culminated in the last and most embarrassing resort: AIDS denialism.[239] Moreover, misleading governmental treatment advice and a publicly demonstrated lack of compassion, relevance and responsibility rubbed additional salt into the wounds of those infected or affected.

4.3.1 Delay, Defiance, Denial

The first act of miscalculation is described as 'the Sarafina II scandal'. In 1995, the government pursued the idea to implant a distinct anti-AIDS message in the popular film musical. The first problem was that considerable European Union funds were used for the project, which later were not permitted for this kind of prevention.[240] Apart from that, AIDS experts had not been consulted and the script was panned as "confused and irrelevant."[241] Sarafina II resulted in a public outcry and was reported to have done immense damage to the government, which later cited it as one of ANC's key mistakes of the year.[242]

The next rather short-sighted ambition was an illegal testing trial of the alleged AIDS treatment Virodene in February 1997. Already burdened with the

[239] Cf. ibid. 45.
[240] Cf. ibid. 45.
[241] Ibid. 45.
[242] Cf. ibid. 45.

reputation of having proved toxic and inefficient in earlier trials for cancer therapy, Virodene was tested in HIV infected patients without adherence to ethical and scientific obligations.[243] The result was no treatment, falsely raised hopes and the dismissal of the chairperson of the Medicines Control Council (MCC), who was removed by the government because the Council kept refusing the drug.[244]

Yet, the controversy did not abate and more material for public indignation and fury was to be delivered soon. The president of South Africa, Thabo Mbeki, has frequently been criticized for giving AIDS not enough room in his speeches that never showed much compassion.[245] But worse, after he had been accused of questioning the relation between HIV and AIDS, he consulted a group of scientists who backed the denial. In 2000, Mbeki invited a number of so-called 'AIDS dissidents' – like famous American controversial scientist Peter Duesberg – to a committee that was supposed to advise the government on further proceedings in the AIDS crisis.[246] One year later, Mbeki's statement that HIV is not wholly responsible for AIDS made a large number of delegates walk out the International AIDS Conference in Durban.

Equally astounding is health minister Manto Tshabalala-Msimang, who was assigned after the election in 1999. She continually emphasized her distrust of antiretrovirals and, instead, kept advising a diet high in lemon, olive oil, garlic, beetroot and the African potato.[247] Moreover, she has frequently supported the Dr Rath Health Foundation, which deals in vitamin supplements as a substitute for ARV drugs and advertise that antiretrovirals are toxic and cause AIDS.[248] In January 2003, Tshabalala-Msimang invited prominent AIDS denialist Robert Giraldo to address the Southern African Development Community Ministerial Health Committee. Giraldo stated that heterosexual transmission of AIDS is a myth devoid of any scientific validation.[249] As a consequence, he was asked to advise the government on nutrition.

In August 2003, relief was brought to every scientist, activist and person living with HIV/AIDS, when the government stated that antiretrovirals help improve the patient's health at a certain stage of the disease. It is hardly worth mentioning

[243] Cf. ibid. 45-46.
[244] Cf. ibid. 46.
[245] Cf. Clare Kapp, "South African Health Minister Must Go, Say Scientists," *The Lancet*, Vol. 368, Sept. 2006, 1142, http://www.thelancet.com/journals/lancet/article/PIIS0140673606694543/fulltext (accessed 15 Jan. 2007).
[246] Cf. Pembrey 6.
[247] Cf. Kapp 2006a, 1142.
[248] Cf. Pembrey 6.
[249] Cf. Nattrass 55.

how essentially the disease in South Africa was able to evolve during the age of denial that gave the epidemic a tremendous lead. In South Africa, TAC staged a demonstration after a prisoner's death, who died of HIV/AIDS due to a lack of antiretrovirals that the government denied to prisons. TAC demanded the arrest and investigation of Tshabalala-Msimang for causing unnecessary and preventable deaths.[250] But also international reactions and consternation over the president's and health minister's standpoints and dubious connections as well as their lack of commitment and action were massive. In September 2006, 81 acclaimed scientists – including the co-discoverer of HIV as a cause of AIDS and Nobel laureate David Baltimore – wrote an open letter to Mbeki, calling for the health minister's dismissal. The letter voiced concern over the minister's views, which were causing confusion and impeded the country's prevention efforts. The scientists claimed that 500 000 people were desperately in need of antiretrovirals and called for an end to the '"pseudo-scientific views'" and "'ineffective, immoral policies on HIV/AIDS.'"[251] Stephen Lewis, the UNAIDS envoy to Africa, complained massively about the country's unwillingness to collaborate and criticized the government for still being '"obtuse, dilatory and negligent for rolling out treatment.'"[252] His speech on the XVI International AIDS Conference in Toronto was perceived as "one of the most extraordinary and damning speeches ever made by a UN official."[253] Yet, the South African government claims that its roll-out programme is currently the largest in the world.

4.3.2 Calculating Life: Economics Rule the Treatment Discourse

South Africa has a long history of treatment denial. In 2001, the public amplified its demand for the provision of Zidovudine for MTCTP. The government reacted by starting a discourse of unaffordability that was ended by the court ruling in favour of the prosecutor TAC. Nicoli Nattrass brought up a highly embarrassing and awkward hypothesis for the government's refusal to treat HIV-infected pregnant mothers. According to her views, the roll-out of MTCTP treatment would result in double costs for the government: firstly, the price for the medicine itself, including

[250] Cf. "UN Envoy Slams South Africa on AIDS," ABC News Online, updated 19 Aug. 2006, http://www.abc.net.au/news/newsitems/200608/s1718924.htm (accessed 25 Jan. 2007).
[251] Cf. Kapp 2006a, 1142.
[252] Ibid. 1142.
[253] Ibid. 1142.

counselling, screening, administration and transport and, secondly, the state-care costs for the saved HIV-negative orphan.[254] As the mother would only receive a short regimen of therapy and no lifelong treatment, she would eventually die and leave an orphan. Conclusively, there are two options to reduce the high number of orphans: either, the government provides both MTCTP treatment and antiretrovirals for the mother after the birth of an HIV-negative child (which it did not), or it neither treats the mother nor the HIV-positive child, thus reducing the number of orphans. Yet, according to Nattrass, HIV-positive children or orphans consume a lot of state-care resources without the probability or ability to become decent taxpayers, financing these expenditures in return.[255] In other words, not treating HIV-positive, pregnant mothers and, thus, permitting the birth of potentially HIV-positive children is not only morally unacceptable, but also economically disadvantageous. The mere, though unproved hypothesis of a government that consciously lets children be HIV-infected due to economic (mis)calculations is truly discomforting.

The fact that AIDS activists and professors of Economics and Social Science, like Nicoli Nattrass, must come down to do calculations for the government to prove that fighting AIDS pays off economically shows the true face of South African AIDS policy until the turning point in 2004/2005. The mere fact that privately done economic considerations are necessary to save the lives of AIDS-threatened, unborn children is a proof for the desolate state of the country's AIDS policy and activism at that stage. In 2001, a South African newspaper, the Mail & Guardian, polemically wrote that the government "'should not be surprised to hear charges of genocide directed against it.'"[256]

This and the previous sub-chapter contain a host of implications. On the one hand, the question appears whether decades of living under the fascist apartheid regime has also had some effect on the new government and its commitment to its people. On the other hand, the Botswana Chapter has proven the importance of political commitment and the dependence of presidents' and the respective ministries' will and devotion to a successful response. While the Botswana President, Festus Mogae, has become a key figure in the fight against HIV/AIDS on the entire continent, the South African President, Thabo Mbeki, has become a symbol of a cold-hearted, economic AIDS policy and denialism; a person who has to be

[254] Cf. Nattrass. 79.
[255] Cf. ibid. 80.
[256] Cf. ibid. 79.

'persuaded' by the high court to provide treatment. This and Mbeki's dubious standpoints on poverty, toxicity, unaffordability, effectiveness and denialism led to the domestic as well as international impression that the South African president and government do not want to solve the problem. Ignorance towards the Botswana neighbour and a complete lack of compassion and far-sightedness underline this impression and have stolen years in the successful fight against the disease that still threatens South Africa more than any other country in the world.

4.4 Cultural Prerequisites for the Epidemic's Spread

4.4.1 The Economy of Sex

The meaning of sex in various African cultures is reminiscent of racial stereotypes inherited from the colonial era; the picture of an animal-like, black African male that knows no moral or normative boundaries to his sex drive: faithless, promiscuous, unchristianized, uncivilized – the latter being understood as the logical consequence of the one before. The thesis exists that colonialists, missionaries and modernizers, or people with similar sentiments, consider HIV/AIDS a kind of expected punishment – for centuries and decades of resistance to western ethics, religion and all ingredients that made western culture superior.

The modern age brought AIDS to western nations; the disease and its spread a product of mobility, permissive, liberalized society and persistently changing morality. But simultaneously, it brought new body concepts of self-responsibility, intended and calculated family planning and the differentiation between fertility and sexual recreation along with it.[257] Africa was left naked in the face of such challenges. In contrast to Africa, established democratic governments in Europe and the United States were willing and capable to launch effective campaigns without the inevitability of breaking traditions or taboos and introducing new scientific thought, which was already integrated and renowned in western societies.

Mbeki – despite his unscientific statements – was right in emphasizing the relationship between poverty and HIV/AIDS. Poverty triggers AIDS and AIDS triggers poverty – a dangerous and devastating vicious circle by definition. The disease is consequence and cause of poverty at the same time, making the breaking-

[257] Cf. Reimer Gronemeyer, *So stirbt man in Afrika an AIDS. Eine Streitschrift* (Frankfurt am Main: Brandes & Apsel Verlag GmbH, 2002) 16.

down of this downward spiral highly complicated. Many answers have already been given to the omnipresent question: why has Africa been hit so severely? Roots of slavery and colonialism, sustained civil and military conflict, geographic disadvantage, patterns of migration, poor governance and structural adjustment – reasons and causes that seem familiar to us (they have already been enumerated before in the sub-Saharan chapter).[258] South Africa, as a defined labour destination, is additionally burdened with intense migration. There also is an unproven, but well possible thesis on the aggressive HIV-1C virus in Africa that haunts the continent more destructively than the European and American HIV-1B virus due to its higher infectiousness and replicative rate.[259]

Yet, HIV is predominantly transmitted via heterosexual sex in Africa. And sex has taken an involuntary position in African society that is closely linked to miserable living conditions and sheer survival. The economy of sex – an expression that would be understood as pornography and prostitution here – is a wider and integrated concept in African societies that rather remains beyond western imagination. Sex is a currency in certain cultures by means of which African women are expected to pay with for crossing a border, obtaining a trading license or even passing a grade in school.[260] Desperate living conditions leave women with no other choice than using sex as a trading currency. This inevitability of sexual favours has been given the name 'survival sex'. During the Zambian famine in 2002, women were charging two dollars for sex with a condom and four dollars for sex without a condom. Although these women were reported to be educated about HIV/AIDS, they said that they rather prefer dying of the virus than of hunger.[261] But also outside the framework of survival sex, there is a large sexual culture of trading sex for fashion accessories, invitations to dine at restaurants or the opportunity to ride in luxury cars or sleep in hotels.[262] The Nigerian saying 'There is no romance without finance' hints at a certain mutuality. Women are expected to pay with sex. But men are equally expected to provide money and gifts in return. Without passing any judgement of these practices that undoubtedly derive from massive gender inequality, it must be said that this accelerates the pandemic and the spread of STIs exceedingly. Mainly in East Africa, risky sexual practices such as widow inheritance,

[258] Cf. Nattrass 26.
[259] Cf. ibid. 26.
[260] Cf. ibid. 27.
[261] Cf. ibid. 27.
[262] Cf. ibid. 28.

widow 'cleansing', wife sharing and exchanging for land or cattle, polygamy and female circumcision push the pandemic ahead. In Southern Africa, culturally established gender inequality, sexual violence, a preference for dry sex, fatalistic attitudes and pressures to prove fertility create this high-risk environment.[263]

Although it is always a combination of factors that make a disease thrive, these cultural prerequisites can, to a great extent, explain the past development of the disease in South Africa and, simultaneously, predict its future. (South) African sexual culture is so highly predestined for an extensive spread of HIV/AIDS that western intervention programmers were left with no other choice than saying: your culture must be transformed.

4.4.2 The Colonial Legacy

Africa is suffering from HIV/AIDS like no other continent. Relentlessly it is reported how devastating the social consequences lay their shadow over the continent's economy, demography, life expectancy and social integrity. Yet, there are also theses which claim that HIV/AIDS itself is a social consequence – one that can be traced back to Africa's unique history of foreign influence and settlement, neutrally speaking. The countries of Africa – and South Africa in particular – are historically burdened with something Whiteside and Barnett refer to as 'abnormal normality'.

> It differs from all other regions of the world in the sustained nature of disruption, exploitation and bad government – and the fact that Africans, in contrast to the indigenous populations of other world regions, have survived these experiences.[264]

It is relatively clear what is referred to in this context: colonialism and the effects it had on providing prerequisites for the current AIDS flow. The complexity of this issue is high, of course – too high to be fully scrutinized and discussed. But this is neither necessary nor that simple, as the controversy of the benefit/damage of the colonial heritage is still unabating. While the sixties, seventies and eighties merely highlighted the negative effects of colonialism, the nineties shed a different, more positive light on this era.[265] Since the 1990s, it has also been argued that colonialism erected basic infrastructure, expanded the educational sector and improved the health

[263] Cf. ibid. 26,7.
[264] Tony Barnett and Alan Whiteside, *AIDS in the Twenty-First Century* (New York: Palgrave Macmillan, 2002) 156.
[265] Cf. Stefan Mair, "Entdeckung und Ausbeutung Afrikas," *Informationen zur politischen Bildung*, *Afrika I*, Nr. 264, Ed. Bundeszentrale für politische Bildung [München] 1999, 10.

care system, which considerably contributed to the reduction of the overall mortality rate.[266] Yet, it remains debatable whether these achievements outweigh the damage. Traditional political and administrative systems were abolished. Indirect rule either discredited the antecedent leaders by involving them or triggered conflict between various ethnicities. Colonial leaders publicly appeared as oppressors, controllers and exploiters, thus shaping African future governance in the post-colonial period.[267] Apart from the general damage of violent punishment, constant disparagement and demonstrated cultural supremacy, de-colonization was also reported to be another very painful and challenging period for the colonized countries (see the Democratic Republic of the Congo).

South Africa undoubtedly carries the heaviest historical and immanent burden of European colonization, oppression and exploitation. The discovery of diamonds and gold in 1867 and 1886 resulted in white immigration increase and black labour 'import'.[268] While Europeans successfully exploited the country's inner wealth, massive labour migration left its traces on sub-Saharan culture and tradition. The social structure experienced great transition. Labour migration, which reached its peak of 1.8 million in 1985, in combination with the crowded, impoverished homelands, led to a further breakdown of traditional cultural structures and livelihoods.[269] The prohibition to bring wife and children into working towns further ruined family structures and "created a culture of urban and rural wives and of sexual liaisons spanning the continuum from 'town wife' to 'prostitute'."[270] As a result, children had to be cared for by others than their original parents, which led to family break-ups, and vice-versa, and also resulted in a large number of untreated STIs. On the one hand, these transitions could be described as inevitable side-effects of industrialization and modern age. But on the other hand, the apartheid regime left South African workers without rights, value and an adequate share in their mineral resources.

Gronemeyer brings up the thesis that Africa has experienced only the dark side, the sacrifices of modern age without ever getting in the position to take benefit

[266] Cf. Stefan Mair, "Ausbreitung des Kolonialismus" *Informationen zur politischen Bildung*, *Afrika I*, Nr. 264, Ed. Bundeszentrale für politische Bildung [München] 1999, 17.
[267] Cf. ibid. 17.
[268] Cf. Barnett and Whiteside 148-149.
[269] Cf. ibid. 151.
[270] Cf. ibid. 151.

from it.[271] Along with several others, he argues that colonialism, missionary work, conversion, development aid, including western prevention programmes and biomedical health concepts, have predominantly done harm to Africa.[272]

4.5 Excursus: Tradition and Death or Modernism and Survival - The Controversy over Western Intervention in (South) Africa

The colonies were dissolved in the 1950s and 1960s. Now Africa is again exposed to western influence in the design of health and body concepts, doctors, nurses, helpers as well as exploiters, who all transport the spirit of the modern age to Africa – willingly or unwillingly. It appears to be paranoid to isolate Africa from everything that is modern or western. But the situation in Africa is grave. Democracies and the public see themselves obliged to act and intervene – partly because they have a bad conscience (due to slavery, colonial or current exploitation), partly because they feel a moral responsibility, compassion and a sense of massive global inequality. Yet, somewhere amidst the consternation and screams for help and intervention, there are also people who see western prevention in Africa as a new attempt on what colonialists, missionaries and development aid workers have left of Africa's traditional culture. One of these advocates is Reimer Gronemeyer, professor for theology and sociology in Germany and well-travelled African AIDS expert. In his polemical treatise (germ. *Streitschrift*), which was published before the major increase in treatment access changed the scenery in 2004/05, he asks the question why western prevention bombardment leaves Africa with almost no effect.[273] Moreover, he states that the cultural damage massively outweighs the benefit.[274]

It has already been mentioned that HIV/AIDS responses in Europe and the USA did not have to introduce scientific and biomedical concepts into societies. Perhaps it can be said that there was no considerable dissonance between the situation and the kind of response. Scientific explanations, biomedical solutions (i.e. treatment, prevention) and modern body concepts of self-responsible care for one's own body seemed congruent with these societies' culture. These concepts – others were neither available nor proven effective – have also been used in Africa. And

[271] Cf. Gronemeyer 27.
[272] Cf. ibid. 27.
[273] Cf. ibid. 27.
[274] Cf. ibid. 18.

apparently, they failed. Gronemeyer and others do not generally object to development aid from western nations. Yet, they demand concepts be sensibly and sensitively adapted to the respective culture – to be both effective and harmless.[275]

This thesis is profoundly supported: it is argued that the western prevention methods are based on willingness and capability of body control and self-surveillance.[276] This imperative has become a constant companion in modern societies, which can thus fend off an equally threatening AIDS crisis. Gronemeyer proclaims that the coldness of modern civilian living conditions, i.e. calculated family planning and constant self-surveillance, has not yet found its way to African societies. Unfortunately, the erosion of traditions, increase in mobility and labour migration provide a fertile ground for a high-risk environment that makes such concepts helpful and vital. Medical approaches, which are well-reputed and firmly positioned in western societies, can impossibly work in a country like South Africa that has not yet unanimously answered the question of the virus' origin. Traditional stands that exclude scientific explanation models are not rare and widely accepted. The theses that AIDS is either a call of the ancients, connected with witchery or a punishable act for the neglect of vital rituals are common.[277] Assumptions like these harden the attitude of AIDS specialists and others that traditional African views and explanation models are dangerous and have to be sacrificed for the sake of survival. Assumptions like these also further western supremacist views, inherited from the colonial and missionary period, which see Africa as inferior and needy and Africans as victims – apparently of themselves.[278]

Gronemeyer realizes with regret that the AIDS crises on the continent are ideal to finally forget and cover the wealth of African culture and tradition. These are now seen as a great prevention barrier that must be overcome in order to offer survival. A strongly scientific conception of the world is said to be laid over Africa – a cocktail of biomedical, rationalistic, hygienic and prevention-oriented ingredients, which discredits traditional black behaviour and thinking and diagnoses everything African as self-endangering.[279] Polemically, Gronemeyer describes these doctors as 'health veterans', who claim a monopoly on ratio, truth and rightness. And as ratio

[275] Cf. ibid. 26.
[276] Cf. ibid. 16.
[277] Cf. Stefan Hippler, "Mit roter Bete gegen die Seuche," *Süddeutsche Zeitung* [München] 1 Dec. 2006.
[278] Cf. Gronemeyer 17-8.
[279] Cf. ibid. 33.

and rightness are already assigned to them, irrationality must logically be ascribed to Africans.

Two important aspects are brought forward to support this criticism: on the one hand, it is described that what appears as fatalism to us might also be a hidden strength and concept of self-healing and coping, something that Gronemeyer describes as 'stream of life', long forsaken in European societies.[280] He highlights the African ability to care for family members, to provide homes for orphans at relatives, to share food and room, no matter how scarce they might be, and to provide a funeral dish under the most difficult of imaginable circumstances.[281] He argues that this power and traditional coping mechanisms are undermined when western health care professionals install home-based care programmes. These intervention methods are better, more efficient and can secure survival. But these methods also penetrate into the area of unspectacular, traditional African methods, and make them dubious and obsolete. A great desire for these better methods is being aroused. But it cannot be stilled.[282]

This example illustrates how sheer good will, a lack of cultural knowledge and consciousness as well as unreflected help can cause more damage than good. It shows that actual help bears a logic of its own that does not necessarily appear at once. A supremacist stance might overestimate western-proven methods and cover the view for subliminal African strengths. Nevertheless, it must be critically asked, if the expression 'stream of life' adequately reflects the hardship affected and infected people are facing in Africa, despite a strong community ethos.

Conclusively, it remains questionable whether western influence is so strong that it has the power to eliminate African culture, its languages, medical approaches, musical and philosophical riches, as Gronemeyer vividly envisions.[283] It also remains questionable whether every doctor, nurse and development aid worker seeks and succeeds to continue what missionaries and colonialists started: the slow but steady infiltration of African culture and initiation of a modern life style. If Africa is so much stronger and self-responsible than the people think whom Gronemeyer criticizes so severely, then why does he not attach Africa the ability to cope with these influences, too? Perhaps the hidden strengths and self-healing concepts are

[280] Cf. ibid. 17.
[281] Cf. ibid. 17.
[282] Cf. ibid. 19.
[283] Cf. ibid. 11.

stronger and western influence weaker than Gronemeyer thinks? Additionally, the question remains unanswered whether missionary work and christianization did not have a beneficial effect in the fight against HIV/AIDS in terms of faith, too – despite the controversial stance on condoms of the Catholic Church. Moreover, there is a huge rift in his argumentation line: it does not include those who carefully and in respect for culture and otherness adapt their concepts to the respective condition. These people also exist. And his generalizations and warnings of a new breed of missionaries disguised as doctors and aid workers are not doing justice to them. On the contrary, even with bearing in mind that his book is a polemical treatise, Gronemeyer's generalizations appear limited, often unfounded and unqualified – despite his apparently good intentions.

A conclusive, diplomatic high wire act closes the sub-chapter: development aid is never generally good or bad. Governmental and public attempts to reduce poverty, disease and inequality must be undertaken – but on the imperative pre-condition of respect and knowledge of the respective cultural and social circumstances.

4.6 Prevention

In Germany, approximately 2500 people became newly infected with HIV in 2006. This is the highest prevalence rate in a decade.[284] Over half of the infected are reported to be either homosexual or injecting drug users. On average, this equates to seven HIV incidences a day – out of estimated 13 000 global daily infections. In South Africa, the total number of people living with HIV/AIDS in 2006 is reported to be around five million. This number is approximately 100 times higher than it is in Germany, where 50 000 people are reported to live with the virus – and South Africa still has 37 million inhabitants less.

These threatening figures make far greater prevention efforts necessary and indispensable. Although the trend in HIV prevalence is classified as 'increasing' by UNAIDS, who also state that "South Africa's prevention efforts have not made notable inroads against the epidemic,"[285] South Africa's national HIV prevention programme for young people, LoveLife, is worth a closer look.

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[284] Cf. Marco Evers, "Gnade der späten Geburt," *Der Spiegel* [Hamburg] Nr. 32, 7 Aug. 2006, 124.
[285] Cf. UNAIDS 2006, 17.

UNAIDS described the number of newly infected young people (aged 15 to 24) in 2005 as 'high' and equal to 2003.[286] Currently, incidence rates for male youth were reported to be 0.6% compared to 6.5% females, making up a total of 179 693 male youth and 815 000 female youth living with HIV/AIDS in 2005.[287]

Launched in September 1999, LoveLife seeks to establish a new model for effective HIV prevention and aims at reducing the HIV infection rate, teenage pregnancy and sexually transmitted infections among young South Africans.[288] The programme has brought together a broad coalition of international foundations working in HIV prevention. Among them are major South African media organizations and private corporations, the government of South Africa and leading South African NGOs.[289] According to the programme's self-description, LoveLife pursues and employs three key components:

Firstly, there are innovative nationwide media campaigns. This includes youth-focused television and radio programming, a monthly youth magazine and billboards that attempt to link young South Africans to clinical services and counselling. This component is founded on acknowledgements that youth consumption of radio and television by far exceeds that of newspapers or other media channels. During the last years, the internet has been increasingly frequented, too, due to the fact that the new democracy led to greater exposure to global influence as well as a rising perception of global opportunities.[290]

Secondly, LoveLife pursues a face-to-face outreach service, which includes a network of youth centres that provide prevention services as well as health services in public clinics. 130 community-based organizations, known as LoveLife franchise holders, support the programme.

Thirdly, a monitoring and evaluation programme shall secure the programme's impact and results. A series of household surveys tracked by young volunteers, an in-depth assessment of the impact of youth centres and an overall

[286] Cf. ibid. 17.
[287] Cf. Warren Parker, Mark Colvin and Karen Birdsall, "HIV and AIDS Scenarios for South Africa: 2005-2025. An Overview of Factors Underlying Future Trends," Centre for AIDS Development, Research and Evaluation (CADRE) on behalf of Metropolitan Holdings Limited, June 2006, 9-10, http://www.cadre.org.za/pdf/Metropolitan%20Report%202006.pdf (accessed 10 Feb. 2007).
[288] Cf. LoveLife, "Strategy," http://www.lovelife.org.za/corporate/index.html (accessed 16 Feb. 2007).
[289] Cf. ibid.
[290] Cf. ibid.

Monitoring and Quality Assurance seek feedback and control the programme's efficiency.[291] LoveLife's concept of combining multi-media campaigns with nationwide community-level outreach and support programmes for youth is implemented by a national youth volunteer service corps known as 'groundBREAKERS'. They work together with around 130 community-based NGOs, 3700 schools and 350 government clinics across South Africa. The greatest share in funding is provided by the government and the Henry J. Kaiser Family Foundation. The Anglo American Chairman's Fund, Independent Newspapers, the National Lottery and several more provide other financing and donations.[292]

The youth programme's concept is indeed presenting itself as a young, vibrant, spirited and authentic part of popular youth culture. But this is intended, precisely calculated and well founded. Prior to the programme's conception, an analysis and survey of youth feelings, fears and views on sex, education, future perspectives, family values and priorities were made to successfully mirror youth culture, "tap in" to it and become a firmly situated part of it.[293] Young people were reported to be 'turned off' by traditional ABC prevention (Abstain, Be faithful, Condomize) and also the red AIDS ribbon that they merely associate with death and disease, but not responsibility, acceptance or any kind of optimism. Consequently, it has been concluded that a youth programme must be substantially different from conventional prevention concepts. As it has been found out that young people do not like to be sheer recipients of a certain message, but rather want to create meaning for themselves, LoveLife reflects young people as ambitious, independent and expressive. As it has been found out that young South Africans are mostly proud of their background, family and country, LoveLife was designed to represent youth as proud of their heritage and their spirit. As it has been found out that young people mostly detest hypocrisy and inequality, LoveLife has created an image of honesty, trust and mutual respect.[294] LoveLife seeks a concept that can compete with brands such as Nike, Diesel and Coca Cola, which young people admire and which are mainly advertised via commercial media. Thus, the programme should be placed right in the middle of youth culture of music, fashion, pop icons and commercial brands. But despite the intended high media penetration, active interaction plays a

[291] Cf. ibid.
[292] Cf. ibid.
[293] Cf. ibid.
[294] Cf. ibid.

major role in the programme's conceptualization, too. It is believed that self-confident, optimistic youth are more careful and self-responsible when it comes to safe sex. It is also assumed that young people who involve in recreational activities and sports are less likely to use sex as a means of entertainment, identity and a means to compensate peer pressure. Thus, LoveLife promotes involvement in sports, creativity and group activities to boost the building of relationships and a sense of self-worth.[295]

4.6.2 Efforts, Impact and Unanswered Questions

Of course, the questions that spring to one's mind while reading the programme's concept are: does it work and how is it implemented? Is it known and accepted by young people? Does it have a notable impact on the epidemic's spread? It appears as if these questions can be answered with 'yes'. Already three years after its inception, the programme was known by 62% of young people, 82% of which agreed that more open communication about sex and sexuality – a declared aim of LoveLife – can help reduce the risk of infection. 76% said that LoveLife made them aware of the risks of unprotected sex and caused them to talk about sex, sexuality and relationships with friends.[296] Another aim – the more frequent use of condoms – seems to have been reached, too. In 2005, male youth aged 15 to 24 had rates of condom use as high as 72.8%, compared with 55.7% of females[297] – a statistic that can perhaps partially explain why four times more girls are infected than boys. Also adults could not flee from the largest condom production on earth: in 2004, 346 million condoms have been distributed, equating 22 public sector condoms per male.

LoveLife seeks to tap in where governmental and social prevention efforts failed or fell short. As society was reported to be reluctant to address youth sexuality and the impact of peer pressure and sexual coercion on youth, LoveLife decided to fill this gap by supporting sexual communication, especially with the vulnerable group of newly sexually active 12 to 17 year-olds. LoveLife is keen on "spearheading a sea change from the traditional 'doomsday' approach", which also included the failed 'do or die' message of the past.[298] As most young people in South

[295] Cf. ibid.
[296] Cf. ibid.
[297] Cf. Parker, Colvin and Birdsall 15.
[298] Cf. LoveLife.

Africa have stated to be optimistic about the future, but scared about HIV/AIDS, the programme uses a tone of optimism, rather than scare tactics, which have proven to have little credibility among youth.

Conclusively, LoveLife fails to deliver profound facts and figures of the concrete and direct impact of their work, which perhaps is difficult to measure, especially when it comes to awareness. The figures at least do not speak a language in favour of the programme. The 2006 report of the Centre for AIDS Development, Research and Evaluation (CADRE) declares that "[i]t remains unclear why the efficiency of such programmes has been so negligible," despite "no shortage of prevention campaigns and programmes in South Africa."[299] The rise of the epidemic is described as 'surprising'. Reasons for failure of the various prevention programmes are thought to be inadequacies in methods and lack of co-ordination, a lack of concerted leadership of the Mbeki government, a failure to use local level responses in a systematic way and a lack of capacities of under-resourced NGOs and smaller community-based organizations.[300] Although solutions seem to be hard to find, the authors of the CADRE report believe that realignments in the various sectors are the right and necessary step forward to change the course of the epidemic to the better.[301]

LoveLife, however, succeeded in creating a broad knowledge of HIV/AIDS among youth: in 2001, 90% of young South Africans had a correct knowledge of HIV transmission. Unfortunately, the gap between knowledge on the one side and actual behaviour change and consciousness on the other seems to be the next challenge: over half of these apparently knowledgeable youth rated their chances of being infected as low or very low.[302] Hence, consciousness raising and behavioural change must be targeted. This is done with massive media coverage on TV, youth radio programmes that are translated into all eleven languages, a helpline that is consulted by 250 000 youth per month, 1000 full-time volunteer peer educators (groundBREAKERS) who have 5000 12 to 17-year-old 'mpintshis' (friends), mobile health education centres on rails, a monthly youth lifestyle magazine and various information brochures on treatment for youth and communication methods for

[299] Cf. Parker, Colvin and Birdsall 27.
[300] Cf. ibid. 27-28.
[301] Cf. ibid. 28.
[302] Cf. LoveLife.

overtaxed parents.[303] It appears that a lack of prevention programmes can hardly be blamed for an absent success.

In the end, the word 'success' is terribly difficult to define when it comes to HIV/AIDS responses. Within all this hardship and never abating new challenges, we are sometimes tempted to lower our expectations and interpret a step in the right direction as success. But there can be no declared success of prevention programmes when the number of infections is rising – particularly despite massive national and bi-lateral investment. Yet, a hypothetical question remains, which will never be answered: how much worse would the epidemic look like without such programmes? No one knows where South Africa would be without them today.

4.7 A Sea Change in South Africa's AIDS Policy Landscape?

A very recent and highly surprising paradigm shift in South African AIDS policy in November 2006 could silence a few inveterate government opponents and bring some unexpected and long lost hope back to sufferers and fighters. Their hope and optimism seemed to have been legitimately buried by the flawed prevention programmes, indifferent and resistant government sentiments and ever-growing death and infection tolls. Yet, there are formerly unknown signs of governmental policy and behaviour change that might be interpreted as heralding a new era in South Africa. In the face of past government behaviour, unheard-of statements and official actions confuse pessimists and shake fatalists out of their apathy.

In November 2006, the government announced a new strategic five-year plan of prevention, treatment and care for people living with HIV/AIDS. This plan includes the aim of putting 650 000 people in need of antiretroviral therapy on the essential drugs by 2011.[304] Admittedly, a very ambitious aim; unfortunately, also one that will probably not meet future demands, when approximately one million people will need treatment in 2011, as TAC members interjected.[305] According to government information, 235 378 people were on treatment on 273 accredited

[303] Cf. ibid.
[304] Cf. Clare Kapp, "South Africans Hope for a New Era in HIV/AIDS Policies," *The Lancet*, Vol. 368, Nov. 2006, 1759, http://www.thelancet.com/journals/lancet/article/PIIS0140673606697171/fulltext (accessed 16 Feb. 2007).
[305] Cf. Kapp 2006b, 1760.

facilities plus 80 000 more in private sector health care in September 2006.[306] Last UNAIDS suggestions in June were 125 000 people less.[307] Although it is estimated that 380 000 are in need of treatment at this very moment, activists and patients welcomed the new government approach. More unprecedented commitment was to be witnessed in September, when deputy president Phumzile Mlambo-Ncguka was appointed to turn the tide in the fight against HIV/AIDS. She revitalized the neglected South African National AIDS Council, which was reported to have rarely met under controversial predecessor Jacob Zuma.[308] Jacob Zuma has been internationally ostracized for his confusing public statement at court that he 'washed off' the virus after he had sex with an HIV-positive women.[309] The new deputy president also broke the tradition of not fraternizing with TAC members when she talked to leaders of the campaign and spoke at a conference co-hosted by TAC. Moreover, deputy health minister, Nozizwe Madlala-Routledge, who took over from controversial, 'lung infected' health minister Tshabalala-Msimang, positively shocked at a civil society AIDS conference. She publicly admitted government failure to control and slow the epidemic and provide treatment.[310] Subsequently, she held a compassionate speech, which contained unprecedented words that seemed to acknowledge the danger of the disease as well as past mistakes such as a shortage of health professionals and lack of infrastructure and propagated better access to treatment for prisoners, children, pregnant women and people with TB.[311] This and the fact that for the first time a speech was printed on the health ministry's web page can be seen as a landmark.

The essence of political leadership for a successful response to the disease has been sufficiently mentioned and proven. Now, for the first time in South Africa a sea change seems to occur. The collaboration of government, civil society and communities is new to South Africa and a great and unprecedented fact. But simultaneously, it is a sad fact. It is hardly believable that a country with over five million HIV-infected people, 1000 new daily infections and 900 daily deaths[312] needed two decades to publicly acknowledge and admit the epidemic's severity and past deficiencies. It remains challenging for activists and people living with

[306] Cf. ibid. 1760.
[307] Cf. UNAIDS 2006, 17.
[308] Cf. Kapp 2006b, 1759.
[309] Cf. Hippler.
[310] Cf. Kapp 2006b, 1759.
[311] Cf. ibid. 1760.
[312] Cf. ibid. 1759.

HIV/AIDS to forgive and forget. But the time is now – South Africa's forces have never been working so closely together before. There are no guarantees. But there is hope – unprecedented hope.

4.8 The Future – Social Threats, Demographic Challenges and Economic Calculus

Although it appears that civil society campaigns can finally reap their harvest and important steps are being made, the future bears challenges as unprecedented as these new government strides. Currently, 380 000 people are said to be in desperate need of treatment, but government statistics, the credibility of which remains unchecked, suggest that 315 000 people are receiving antiretrovirals. However, it needs no sophisticated prognoses to see that all of the five million people living with HIV/AIDS at the moment will at some, very certain stage in their lives be dependent on antiretrovirals, which they then must take until they die. Of course, these five million people in South Africa 'only' represent 12.5% of all people living HIV/AIDS on earth. And of course, they will not fall ill at the same time. But one day they will.

And this has consequences. Prognoses of the most various and frightening kind have been undertaken to sketch the pandemic's future path. Yet, it appears vital to differentiate – no easy task with merely hypothetical assumptions. LoveLife suggested in 2003 that by 2010 the toll of people living with HIV/AIDS could rise to ten million.[313] Yet, although it sounds strange at first sight, this does not necessarily have to be negative. Currently, 1000 new daily infections and 900 daily deaths in South Africa almost cancel each other out. Reducing the number of HIV-infected people by letting them die can impossibly be rated as positive. Sheer numbers can be deceiving. Logically, if the government and private campaigns can successfully pursue their aim to put more people on treatment, the number of infected people rises. A successful response to an epidemic would be declining new infections and increasing provision of treatment, thus reducing the number of the dying, thus leading to a greater total of people living with HIV/AIDS. This would undoubtedly disappoint and upset the public, which is probably incapable of 'reading' the numbers correctly. The formula 'declining numbers are good – rising numbers are bad' is only applicable and true if the epidemic is slowly and as natural as possible

[313] Cf. LoveLife.

dying out, i.e. when new infection rates abate and antiretrovirals cannot prolong life any longer, thus resulting in a relatively 'natural' death. Unfortunately, this is rather utopian. The opposite formula 'rising numbers are good – declining numbers are bad' can therefore only be true in the case sketched above, when mass dying is averted by providing more and more people in need of treatment with antiretrovirals, thus preventing a neutralization of new infections with deaths.

However, the number of infected people is often object to global prognoses that help calculate economic impacts, plan future development aid and shape pharmaceutical business. German *Der Spiegel* quotes scientists who predict that by 2025 the global number of infected people will reach 100 million.[314] Mathers and Loncar of the WHO report that in 2030 6.5 million people will fall victim to the epidemic every year, making AIDS the largest infectious disease on earth.[315] Yet, for Africa, Cleland and Sinding predict, "that epidemics in western and middle Africa will not follow the devastating trends seen in southern Africa."[316] Instead, they suggest that continued high fertility, rapid population growth, a lack of birth control and contraceptive support programmes will be the major drivers of poverty on the continent.

For South Africa, Barnett and Whiteside predict that the economy will be 17% smaller in 2010 than it would have been without AIDS.[317] According to a study that they quote, the GDP per capita will then be 8% lower than without the epidemic. This can be traced back to a slower growth in productivity, but mainly to "the shift in government spendings towards health, which increases the budget deficit and reduces total investment."[318] Singh adds that the killing in the most productive years leads to reduced labour forces, which increase the ratio of dependants and, thus, cause unseen demographic scenarios and challenges.[319] Moreover, he argues that the economic diminution could impinge on foreign investments and other Southern African countries. Even peace and stability in the region could be at danger, as 17-22% of

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[314] Cf. Evers 124.
[315] Cf. "WHO: Immer mehr Aids- und Verkehrstote." *Süddeutsche Zeitung* [München] 28 Nov. 2006.
[316] John Cleland and Steven Sinding, "What Would Malthus Say about AIDS in Africa?" *The Lancet*, Vol. 366, 26 Nov. 2006, 1900, http://www.thelancet.com/journals/lancet/article/PIIS0140673605676039/fulltext (accessed 16 Feb. 2007).
[317] Cf. Barnett and Whiteside 288.
[318] Ibid. 288.
[319] Cf. Jerome A. Singh, "Why AIDS in South Africa Threatens Stability and Economic Growth in other Parts of Africa," *The Lancet*, Vol. 364, 27 Nov. 2004, 1919, http://www.thelancet.com/journals/lancet/article/PIIS0140673604174916/fulltext (accessed 16 Feb. 2007).

South Africa's 2800 peacekeepers, who secured relative peace in countries such as Burundi, Liberia and the Democratic Republic of the Congo, are thought to be HIV-positive.[320]

South Africa's AIDS crisis is a test for the country's social values and solidarity. Increasing government expenditures for the ever-growing number of people in need of treatment, orphan care and extensive prevention programmes must result in taxation increase. Nattrass argues that those who are economically better positioned and have access to treatment, education and health facilities will probably prefer a policy that prioritizes economic growth and minimizes taxation.[321] As a matter of course, AIDS is a disease strongly linked to poverty. And the poor do not have a strong lobby to steer policy making. Hence, AIDS challenges South African solidarity in new and unseen ways. In 2002, a few far sighted multinational financial services groups such as Alexander Forbes or Old Mutual and mining houses such as Anglo American, AngloGold Ashanti and De Beers have started internal treatment roll-out due to the absence of governmental programmes.[322] Singh reports that these efforts had a limited effect because of stigma and the fact that only few firms followed these examples. But as the epidemic evolves and will increasingly weaken productivity, South Africa cannot afford stigma anymore. These initiatives must at least be supported if the government fails to provide the necessary drugs to maintain its work force. Also the Ministry of Defense started two well-praised programmes for army members named the Masibambisane Campaign and Project Phidisa, which is a collaboration between the South African National Defense Force, the US Department of Defense and the National Institute of Health.[323] Such exemplary and apparently functioning programmes will be necessary in new and unprecedented extents to maintain an intact army and, as Singh brought up before, peace and stability in the region.

South Africa has wasted considerable time in the past and now faces the burden of its missed chances and unused opportunities. The country failed to tame a disease that will threaten the country's integrity and maintenance – both socially and economically. Hopefully, the apparent, recent sea change in governmental AIDS policy is to be taken seriously. South Africa cannot afford to keep the struggling

[320] Cf. Singh 1920.
[321] Cf. Nattrass 182.
[322] Cf. Singh 1920.
[323] Cf. ibid. 1920.

forces separated. The country has served as a negative and deterring international example for too long. The downward spiral of unemployment, poverty and AIDS can unleash social and demographic worst-case scenarios that will not leave the economically safe untouched. Nevertheless, the economic elite does not depend on the majority of those affected by the disease. It might by assumed that those vital for the country's economy, i.e. skilled workforce, will be saved and a model of triage will dominate the following years of treatment provision, which will let AIDS ravage the economically insignificant poor and unemployed. What makes this situation a moral dilemma is the fact that the skilled labour force can save the affected poor and unemployed – but not the other way round. This is the cold calculus that Nattrass at some stage of her book referred to as 'the moral economy of triage'.

5. International Intellectual Property Law

Approximately thirteen years after the discovery of HIV/AIDS, expanded access to treatment was made possible in developed countries and first showed notable results on the reduction of mortality rates. The mid-1990s brought new medicines to developed nations, which included three kinds of ARVs in various combinations: nucleoside reverse transcriptase inhibitors, non-nucleoside reverse transcriptase inhibitors and protease inhibitors.[324] In 1997, the US Food and Drug Administration approved over 50 therapies, which could be used either for the treatment of opportunistic infections or to slow or disrupt viral replication. When in 1998 it was reported that AIDS mortality decreased by 75% during the last four years in the United States, major efforts were made to expand treatment access in developed nations. A huge medical and biological breakthrough was achieved. This breakthrough brought dramatic survival benefits to people living with HIV/AIDS and averted long-term costs related to opportunistic infections and hospitalization.[325] As a matter of course, it contributed substantially to enhancing the quality of life of infected people, allowing them to continue their jobs and prolong life. ARVs brought an end to the assumptions that AIDS equalled death and showed that important steps were made to make the disease less deadly. Moreover, the sale of AIDS drugs has become a multimillion-dollar industry in developed countries for companies such as Abbott Laboratories, Merck and Co. and Roche Holding AG.[326] Yet, it was only a question of time when activists, development aid workers, NGOs and private campaigns would wonder publicly why those most severely hit by the disease and, therefore, most desperately in need of treatment had almost zero chances to get a hold of it. Comparing the numbers of infected people in regions such as sub-Saharan Africa with those in Europe and the United States made this a legitimate question. As dying of AIDS silently took its course in resource-limited settings, international consternation, protest and pressure mounted. Reich and Bery report that a paradigm shift was to be observed. While previously, many people wondered if it was "feasible or desirable" to treat AIDS patients in poor countries, treatment access to AIDS

[324] Cf. Michael R. Reich and Priya Bery, "Expanding Global Access to ARVs: The Challenges of Prices and Patents," 2004, *The AIDS Pandemic: Impact on Science and Society,* Kenneth H. Mayer, H.F. Pizer (California: Elsevier Academic Press, 2005) 325.
[325] Cf. Reich and Bery 325.
[326] Cf. Kristine Novak, "The WTO's Balancing Act," *The Journal of Clinical Investigation*, Vol. 112, Nov. 2003, 1269, http://www.jci.org/cgi/content/full/112/9/1269 (accessed 30 Dec. 2006).

drugs was more and more "expected and demanded."[327] Yet, it had very soon to be acknowledged that apart from a host of other obstacles, two major barriers stood in the way of providing treatment to the poor: prices and patents.

5.1 Unravelling the Great Controversy: Point, Counterpoint

Patents and prices had been clearly backsighted by activists and NGOs, who collectively saw them as the most impeding obstacles in the fight against HIV/AIDS. Yet, pharmaceutical companies and the WTO did not agree so unanimously to these assumptions. As the dying continued and medicine prices as well as international copyright law, set and regulated by the WTO, remained unchanged, activists accused pharmaceutical companies of consciously holding back medication and, thus, being partly responsible for numerous avoidable deaths. Patents, originally designed to secure protection of the inventor against abuse of his or her product, grant the licensee the opportunity to keep exclusive rights, which allow regulation of prices and, thus, successfully avoid competition, in the absence of equally applicable inventions, i.e. generics. It was argued by activists that avoidance of competition for medication and a monopoly of prices are ethically irresponsible, as it only saves those who can afford to accept the price policy of pharmaceutical companies and completely leaves out those who are most desperately in need of treatment.

The opposing side argued that a removal or relaxation of patents would unavoidably remove incentives for pharmaceutical companies to create and test new drugs.[328] This was a legitimate point. But, of course, it was also a very calculated response. The pharmaceutical industry knew that a lack of new drugs to better and more efficiently cure diseases and global health threats would definitely not be in the interest of those who fight for better treatment of all kinds of diseases, e.g. malaria and TB. This argument was surely aimed at arousing fear and wanted to say that all want the same. A lack of new drugs, the unavoidable consequence of patent relaxation or removal, as it was argued, would be serving no one – neither activists nor companies nor those who need it. Despite the apparent calculus, patents serve as a guarantee for companies to recoup their research and development costs.[329] Without this financial safety net, it is likely that firms withdraw from taking the risk

[327] Reich and Bery 325.
[328] Cf. Novak 1271.
[329] Cf. ibid. 1271.

of investing millions of dollars in clinical trials and drug approval – especially as the outcome of trials and duration of approval remain unclear. The drug research and development database Pharmaprojects already reported that the number of studied antiretroviral compounds fell from 250 in 1998 to 173 in 2001 – a decrease partly owing to pressure on companies to give the drugs away for free after approval.[330] Nevertheless, the opposing side responded that the argument of cost compensation for drug development tests does not justify high prices and still valid patents in most cases. Most antiretrovirals were tested and approved by public institutions and public funds and the development costs for most drugs have long been recouped. Zidovudine, for example, better known as AZT, was first synthesized even before the discovery of HIV/AIDS in 1964. Most of the research that proved the drug's effectiveness as an antiretroviral was done by the US National Institute of Health and was sold to Glaxo Wellcome in 1987, which sold the drug for extremely high prices and kept the patent until the usual expiration of 20 years.[331] This also accounts for other drugs like didanosine, stavudine and zalcitabine, the patents of which are held by public authorities that have granted rights to commercialisation to private companies on an exclusive basis. All this is weakening the pharmaceutical companies' point that they have to recoup 'their' development costs in all cases.[332]

On the other hand, the assumption remained dubious whether patents were the main obstacles in the way to provide regions like sub-Saharan Africa with drugs. Overwhelming national poverty, dilapidated, insufficient health-care systems, economic stagnation, political instability and the impact of stigma and discrimination, which prevents people from getting tested and consult counselling, were named far greater barriers.[333] This also results in a dangerous and typical catch-22 case: people do not get tested as long as there is no treatment available – but there is no need to provide treatment as long as people do not get tested. Furthermore, a lack of infrastructure, doctors, nurses, diagnostics, clean food and water stand massively in the way to increase treatment access. Harvey Bale, director-general of the International Federation of Pharmaceutical Manufacturers Associations, also stated that politicians often blame patent restrictions to avoid criticism for their own

[330] Cf. ibid. 1271.
[331] Cf. Paul Chirac, Tido von Schoen Angerer, Toby Kasper and Nathan Ford, "AIDS: Patent Rights versus Patient's Rights," *The Lancet*, Vol. 356, Aug. 2000, 502, http://www.thelancet.com/journals/lancet/article/PIIS0140673600025666/fulltext (accessed 30 Dec. 2006).
[332] Cf. Chirac, von Schoen Angerer, Kasper and Ford 502.
[333] Cf. Reich and Bery 326.

inability to take care of the people and for their own abuse and mismanagement of resources.[334] Despite the possibility of this remark and all other obstacles, it remains questionable how sub-Saharan African countries can afford European or American prices. Médecins Sans Frontières (MSF) argued that infrastructure would follow once treatment is affordable and that there were no incentives for governments to even think about expanding infrastructure and health facilities as long as treatment remains utopian and beyond reach.[335]

In October 2001, when the debate over Intellectual Property Rights (IPS) and their limiting effect on treatment access culminated, Amir Attaran and Lee Gillespie-White published an empirical study in the *Journal of the American Medical Association* (JAMA), which scrutinized whether the charges of patents being the main obstacle to HIV/AIDS treatment in sub-Saharan Africa were true. Yet, the financing of the paper appears slightly dubious, which makes its content and objectivity questionable: Attaran (Bachelor of Laws, Doctor of Philosophy) and Gillespie-White (Bachelor of Laws) were financially supported by the Center for International Development at Harvard University (Dr. Attaran) and the World Intellectual Property Organization, a UN specialist agency (Ms Gillespie-White), explains the paper itself.[336] It also informs us that "[a]fter the study was completed and the manuscript submitted, the International Intellectual Property Institute received a grant from Merck for US$25 000."[337] However, the paper concluded that a variety of obstacles were impeding treatment access such as the poverty of African countries, the high cost of antiretroviral treatment, national regulatory requirements for medicines, tariffs, sales taxes and most urgently a lack of sufficient international financial aid – but not the patents of the 15 antiretroviral drugs examined in 53 African countries.[338] What appears interesting here is the assumption that high costs of drugs are partly responsible, but not patents. Patents and prices are neither the same nor interchangeable. Yet there is a correlation. It has been omitted that patents successfully avoid generic competition and importation under the then WTO law. Both would substantially lower prices. However, the two authors found out that only a very small number of patents exist in Africa. The reason for this simultaneously

[334] Cf. Novak 1272.
[335] Cf. ibid. 1272.
[336] Cf. Amir Attaran and Lee Gillespie-White, "Do Patents for Antiretroviral Drugs Constrain Access to AIDS Treatment in Africa?" *Journal of the American Medical Association*, Vol. 286, Oct. 2001, 1892, http://jama.ama-assn.org/cgi/content/full/286/15/1886? (accessed 23 Feb. 2007).
[337] Cf. Attaran and Gillespie-White 1892.
[338] Cf. ibid. 1886.

hints at the source of the problem: Africa's share in the pharmaceutical market is 1.1% of the global whole, thus making it "commercially negligible,"[339] compared to "the lucrative North American and European markets,"[340] which secure the profitability of drug research. For most pharmaceutical companies in most African countries, the cost of patenting and the difficulty of enforcing these patents before the respective judicial systems of the countries are not worth the effort.[341] Hence, as the authors found out, most antiretrovirals remain unpatented in most poor countries, freeing companies from charges and leaving African countries with the legal potential to make use of the absence of patents – if they could. MSF and Oxfam claimed that the paper is used as justification for companies' further inaction to introduce differential pricing and questioned the paper's validity due to the US$25 000 from Merck. However, they stated that the most practical and sought-after formulations have been strategically patented, while drugs left unprotected typically are impractical in resource-poor communities.[342] And indeed, as explained above, patents are only licensed when it makes sense economically. Hence, two of the biggest manufacturers, GlaxoSmithKline (GSK) and Boehringer Ingelheim, patented their products. The only country with a high number of patents was South Africa. This is in no way surprising, as the country's large number of infected people and its relative wealth distinguish it substantially from most African countries and make it economically interesting and potentially profitable. Yet, Attaran and Gillespie-White certified no difference in use between drugs from Abott Laboratories, patented in 0 countries, and from GlaxoSmithKline, patented in 37 countries.[343] This result can bring us back to the immanent and easily applicable argument of poverty, which would clear pharmaceutical companies of responsibility and the charge of massively impeding treatment access. Many companies would undoubtedly welcome this. But this result can also bring us back to the debate over unaffordable prices, which would surely be welcomed by MSF, Oxfam and others.

The paper closes with the conclusion that the economies of Africa could not even afford more than a few percent of the cost of treatment. As a consequence, the failure of wealthy governments to provide sufficient financial aid has predominantly

[339] Ibid. 1890.
[340] Ibid. 1890.
[341] Cf. ibid. 1890.
[342] Cf. Wohlgemut 485.
[343] Cf. Attaran and Gillespie-White 1890.

to be blamed.[344] These two points appear legitimate. They hint at what had to happen and also happened in the next years. Firstly, prices had to be considerably reduced and adapted to African health care resources. Secondly, financial aid had to be increased to provide the necessary supplement to the still unaffordable costs of treatment. And thirdly, the WTO Intellectual Property Rights had to be amended, so that patents do not block the importation of cheaper generic drugs. It had become obvious at that stage that the extensive use of generics and the amendment of IPS were inevitable and the only way to put an end to the mass dying in resource-limited environments in Africa.

5.2 The Original Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS)

This sub-chapter summarizes the most important aspects of the original TRIPS agreement under the WTO, enacted in 1995, and points out its deficiencies, which later were object to massive criticism, controversy and campaigning. Its original contents also provide the prerequisites for the comprehension and necessity of the amendment.

Pharmaceutical companies issue patents on their products under the TRIPS agreement of the WTO. These patents prohibit copying and production, hence, guarantee a temporarily limited market monopoly during which the producer or inventor gets the chance to recoup their development or research costs. In 1995, the TRIPS agreement granted WTO member countries the right "to codify certain standards of patent protection into national law."[345] The deadline for the agreement's implementation was set to 2001 for developed countries and 2006 for least-developed countries. As this was a very strong and restrictive step towards licensing, certain safeguards had been included in the agreement, of which 'compulsory licensing' is a noteworthy one. Compulsory licensing allows national governments "to revoke the monopoly privilege conferred by a patent and allow other producers to enter the market where it is in the public interest, such as for the protection of public

[344] Cf. ibid. 1891.
[345] MSF, Tido von Schoen Angerer, David Wilson, Nathan Ford and Toby Kasper, "Access and Activism: The Ethics of Providing Antiretroviral Therapy in Developing Countries," *Official Journal of the International AIDS Society*, Vol. 15, 2001, 82, http://www.aidsonline.com/pt/re/aids/fulltext.00002030-200100005-00011.htm (accessed 24. Feb. 2007).

health."[346] This is a way of circumventing the agreement of the patent holder, which is not necessary for a compulsory license. In exchange, the patent holder must be paid a reasonable licensing fee. Yet, as the most affected countries are impoverished and generally do not even have the opportunity to produce generic drugs themselves, another safeguard had been included. 'Parallel importation' allows such countries "to obtain the lowest priced patented drugs offered on the world market by importing from countries where the drug is sold at a lower price."[347] Nota bene, parallel importation only refers to patented, conventionally produced drugs, i.e. without compulsory licensing and without the advantage of obtaining cheaper generics. Unfortunately, even the cheapest prices are far beyond such countries' opportunities.

Certain drugs remain unpatented, which allows for generic production and competition without the need (and process) to apply for compulsory licensing. Generic production of patented drugs via compulsory licensing is restricted to a domestic market and, thus, excludes exportation.[348] Drugs are patented in certain countries, when the licensee expects consumption and sale of the product, i.e. when the licensee fears loss of profit due to potential copying. Hence, as declared in the previous sub-chapter, drugs remain unpatented in countries in which their use is questionable or improbable. Unpatented drugs are often less effective and more difficult to apply – which is one reason why they are unpatented. Nevertheless, by means of compulsory licensing and the production of unpatented drugs, certain countries such as Brazil or India, which both started quite early with generic production, were given the opportunity to establish a treatment programme. Many treatment programmes are firmly founded on generic production and would look considerably different without it: Thailand's ARV programme, for example, expanded more than eight-fold between 2001 and 2003 – but the budget merely increased by 40%.[349] Another example is Brazil, which produced seven out of 14 drugs it distributed in 2003. But three of the patented drugs it had to import from

[346] MSF, von Schoen Angerer, Wilson, Ford and Kasper 82.
[347] Ibid. 82.
[348] Cf. Novak 1269.
[349] Cf. Nathan Ford, David Wilson, Onanong Bunjumnong and Tido von Schoen Angerer, "The Role of Civil Society in Protecting Public Health over Commercial Interests: Lessons from Thailand," *The Lancet*, Vol. 363, Feb. 2004, 562, http://www.thelancet.com/journals/lancet/article/PIIS0140673604155451/fulltext (accessed 24 Feb. 2007).

multinational pharmaceutical companies accounted for 63% of its US$200 million annual budget in 2003.[350]

Yet, and this is a critical point, the people most affected by the disease, i.e. people in Africa, live in countries which do not have the technical facilities and skills to make use of these unpatented drugs. Moreover, under the TRIPS agreement, they are not allowed to import drugs from generic producers. This results in the following distribution of medication: wealthy nations are provided with the best, most effective and most easily applicable drugs. Low-to-middle income countries with a pharmaceutical industry are partly capable to set up treatment programmes with less effective, but functioning, second-class drugs. And those who have no drug manufacturing capacities and cannot afford legal importation of patented and expensive European or American drugs, could, however, partly afford to import drugs from generic producers, but are not allowed to.

It had soon been realized that this legal situation did not only leave the poor disadvantaged, but also those who are most severely affected and dying in highest numbers. Médecins Sans Frontières argued that under the original TRIPS agreement, patent holders create market monopolies by having the legal right to avert competition.[351] Moreover, they accused pharmaceutical companies of decreasing treatment access by intentionally omitting differential pricing. According to their charges, patent holding companies "charge globally whatever price the Western markets will bear […] to maximize profits in developed countries without attempting to enter less lucrative markets."[352]

In May 1998, the issue of intellectual property rights and their connection to public health was first raised at the annual gathering of member states of the WHO.[353] Public concern was further voiced at the WTO meeting in Seattle in December 1999. On the XIII International AIDS Conference in Durban, South Africa, in 2000, "[l]eading scientists, government agencies and activists all argued that it is no longer acceptable that the vast majority of people with HIV/AIDS are left without treatment."[354] Since then, provision of affordable treatment has become a worldwide concern and vital part of debates, conferences and activism, which soon were to make a considerable change.

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[350] Cf. Novak 1271-1272.
[351] Cf. MSF, von Schoen Angerer, Wilson, Ford and Kasper 81.
[352] Ibid. 81.
[353] Cf. ibid. 81.
[354] Ibid. 81.

5.3 The Way to Increased Treatment Access Is Being Paved – Five Corner-Stones

AIDS activists, people living with HIV/AIDS, generic pharmaceutical companies and several NGOs drew more and more media attention to access barriers. They succeeded in attributing a major role to the topic on international health and UN policy agendas. Additional attention was drawn on the issue when activists and Nelson Mandela publicly opposed the lawsuit brought (and eventually withdrawn) by 39 drug manufacturers against South Africa's Medicines and Substances Act of 1997.[355] International agencies and pharmaceutical companies responded to the pressure by promising new mechanisms that aimed at expanding access and reducing prices in developing countries.

The first notable corner-stone was a UNAIDS project called the Drug Access Initiative set up in Uganda and Côte d'Ivoire in 1997, which achieved a decrease in prices from US$12 000 in 1997 to about US$7200 in 1999.[356] Although much is not reported about the initiative and the price difference may seem insignificant, as still tremendously too high to make a change, it was a first serious attempt, which the next could be based on.

The second, more serious undertaking was a collaboration of UNAIDS, co-sponsoring international agencies and six pharmaceutical companies called the Accelerating Access Initiative (AAI), established in May 1999.[357] The WHO reported that as of June 2002, 19 countries had signed agreements on reduced drug prices. By June 2003, 76 000 people were on antiretroviral treatment – an insignificantly small proportion considering the actual number of people in need.[358] Yet, it was only another step of many more to come. And the efforts put pressure on pharmaceutical companies and international donors as they increasingly unveiled and emphasized a public health disaster.

A vital corner-stone of the global development of treatment access was Brazil with the first full-scale national commitment to provide universal and free access to ARV therapy for all its needy citizens.[359] Its high-level political commitment and legal enactment of treatment guarantee in the 1996 constitution were unprecedented

[355] Cf. Reich and Bery 329.
[356] Cf. ibid. 329.
[357] Cf. ibid. 329.
[358] Cf. ibid. 329.
[359] Cf. MSF, von Schoen Angerer, Wilson, Ford and Kasper 86.

and pioneering for developing countries. By developing capacity for local production of generics and threatening with compulsory licensing, Brazil achieved price declines of ARVs to US$5000 in 1999. These declined further to US$2000 per patient per year in 2003, and the country succeeded in halving its mortality rate.[360] Of course, this remarkable success evoked hopes and ambition to replicate it, especially as Brazil counts among developing countries. Yet, the Brazilian AIDS response took benefit from a few, but vital advantages, which make it rather unique and, thus, difficult to reproduce in other countries. Brazil is not only often referred to as a model for a successful AIDS response, but it is also deemed to be highly influential on the world's ARV access development. Hence, it deserves greater attention, examination and its own sub-chapter (see 5.4).

The fourth corner-stone of enhanced international treatment affordability is the country of India with its 2001 Cipla offer. Very recent estimates have shown that the number of HIV-infected people in India has outdone that of South Africa. Currently, 5.7 million people are estimated to carry the virus.[361] However, drug producers started early with ARV manufacture. In the late 1990s, they focused on the domestic market and began to explore export opportunities.[362] None of the generic AIDS drugs were covered by product patents in India, which paved the way for a thriving future drug industry. As of 1998, the annual per patient cost of a protease inhibitor-based HAART regimen reached US$689 per patient per year.[363] From then on, prices declined steadily. The introduction of generic nevirapine into the Indian market in 1999 allowed for the legendary and unexpected Cipla offer in February 2001: the generic company offered to sell ARV combination therapy at US$350 per person per year to MSF and at US$600 per person per year directly to governments in poor countries.[364] This announcement was a giant stride, especially as the lowest market price worldwide for a triple combination therapy at that time had merely reached US$10 500. These price differences admittedly appear grotesque – although even within European countries, pricing can differ remarkably. Nevertheless, the huge discrepancy between former offers and the Cipla announcement had a major impact: on the one hand, it shifted the debate from unaffordability to infrastructure,

[360] Cf. Novak 1271.
[361] Cf. Kapp 2006b, 1141.
[362] Cf. Reich and Bery 330.
[363] Cf. Chris Beyrer, N. Kumarasamy and H.F. Pizer, "Asia: Health Meets Human Rights," 2003, *The AIDS Pandemic: Impact on Science and Society,* Kenneth H. Mayer, H.F. Pizer (California: Elsevier Academic Press, 2005) 391.
[364] Cf. Reich and Bery 330.

health care provision and also adherence – the other major obstacles in the way to treatment access and efficacy. On the other hand, it discredited former price offers of American and European companies of US$13 000. For the first time, it was unveiled that these prices were not set in stone and that alternatives were possible that could make a real change. At the end of 2002, international pressure and low-cost generic competition caused another steep decline in drug prices. The improved affordability and availability of generic non-nucleoside-based HAART was reported to enhance people's willingness to get tested and consult counselling.[365] Beyrer et al. also report that despite the social hurdle of stigma and discrimination, HIV was no longer perceived as a fatal disease.[366] Nevertheless, it remains a sad fact that the dramatic price reduction to one or two dollars per day is still more than a lot of people can afford – in India and elsewhere.

In the fall of 2003, the generic drug industry witnessed another stark decrease in treatment pricing. The William J. Clinton Foundation announced a new partnership with Indian and South African generic producers and community organizations to provide triple-drug therapy at 38 cents per patient per day in Africa and the Caribbean.[367] Prior to this offer, the Global Fund to Fight AIDS, TB and Malaria had been established and promised an increase in people receiving ARVs to 500 000 until 2008 through Fund-supported programmes. Moreover, PEPFAR had been founded in May 2003 and announced to put two million people on treatment within the framework of its five-year plan that included a US$15 billion commitment.[368] Despite this ambitious – or euphoric – undertaking, the achievement of this goal looks at least questionable at the moment. However, the 38 Clinton cents rang in a new era in treatment pricing and revealed unprecedented possibilities. These US$144 per patient per year made the US$12 000 suggested by European and American pharmaceutical companies not necessarily appear in a favourable light. It is inadequate to compare the production methods, costs and efficacy of these two offers. Yet, the feasibility of such small prices made the former ones look illegitimate and hardly comprehensible. It remains unsettled whether pharmaceutical companies in Europe and the US repeatedly tried to block generic manufacture because they knew or feared that these prices would partially discredit their own ones.

[365] Cf. Beyrer, Kumarasamy and Pizer 391.
[366] Cf. ibid. 391.
[367] Cf. Reich and Bery 331.
[368] Cf. ibid. 331.

These five corner-stones mark the way to increased treatment access and document the dramatic decrease by 98% in four years – from US$12 000 in 1999 to US$200 in 2003. Yet, uncertainties remain. The future generations of ARVs are not yet covered by current agreements and policies. Moreover, in 2005, "India revised its patent laws to comply with WTO rules, potentially preventing the country's generic pharmaceutical industry from manufacturing generic equivalents for drugs patented after 1996."[369] UNAIDS states that these revised laws will probably not hinder India's people to receive therapy, especially as a few patents for first generation drugs such as AZT will soon expire.[370] But these laws may prevent countries from looking to India for affordable generic equivalents of second-line antiretrovirals. This is a great future danger. Treatment regimens are usually complex, demand appropriate lifestyles, individual medical adaptation and monitoring before, while and after treatment, which demands specific services and facilities.[371] Inconsistent adherence may lead to drug resistance, which will then demand new second-line ARVs. Moreover, treatment access does not solve the problem alone in poor countries. Affordability does not equal availability. And availability does not automatically secure efficiency. Treatment availability can impossibly be the complete answer. But it is a vital part of the answer. The way Barnett and Whiteside put it explains a lot, when read symbolically, and throws us back to a far more complex and far-reaching problem: "Medications may have to be taken at certain times of day, sometimes on an empty stomach, sometimes on a full stomach. The full stomach may be a problem in many cases."[372]

5.4 Brazil Sets a Milestone in Treatment Access by Enabling Generic Competition

A number of countries show how not to respond to impending health crises. Others, like Botswana, Thailand or Brazil show how to respond to health threats and serve as a positive example, a model that is frequently admired and thus examined and partially adapted. As shown in the Botswana and South Africa chapter, the varying circumstances, history and wealth often do not allow for replication or repetition, as

[369] UNAIDS 2006, 165.
[370] Cf. ibid. 165.
[371] Cf. Barnett and Whiteside 340-341.
[372] Ibid. 340.

they determine the epidemic's individual form and, thus, its individual responses. Nevertheless, these successful responses can and should serve as a model for countries with less efficient strategies. Brazil's story of generic production, its commitment to free ARV provision and its courage to make full, legitimate use of TRIPS safeguards, despite the risk of economic sanctions, is such a model. It delivers affluent potential for adaptation. But it also contains specific features that exclude replication.

Brazil is home to more than one third of the estimated 1.6 million people living with HIV/AIDS in Latin America.[373] In 2005, AIDS claimed 59 000 lives and 140 000 people became newly infected with HIV, which led to more people living with HIV/AIDS and made the epidemic's growth likely. Yet, another reason for the increase in the total is the coverage of antiretroviral therapy. Approximately 73% (294 000 out of circa 400 000 people) in need were on ARV treatment at the end of 2005 in the whole of Latin America.[374] Brazil delivered treatment to 170 000 of its 209 000 needy citizens.[375] Compared to the global average and coverage in Africa, this figure is exceptionally high. Brazil, the main manufacturer and deliverer of drugs in Latin America, also succeeded in providing these drugs free of charge, making the country's AIDS policy even more outstanding and bewildering.

First, the 1988 constitution guarantees universal access to health care. In 1996, when it dawned on government officials that HIV/AIDS would increasingly put weight on the health care system, Brazil amended it with a law that assured universal access to antiretrovirals.[376] Not only did the constitution itself build a solid ground against future health threats. The political commitment to steer the country through future obstacles was perhaps even more vital. Nevertheless, universal and free treatment provision was also brought about by a strong civil society movement that effectively put pressure on the government to integrate universal access into the law and into official policy.[377] Apart from political commitment, civil society campaigning has emerged as a vital ingredient of successful AIDS responses throughout this work.

Next, Brazil was a member of the WTO and therefore bound to TRIPS and its patent restrictions. But the country started early with the production of unpatented

[373] Cf. UNAIDS 2006, 41-42.
[374] Cf. ibid. 41-42.
[375] Cf. ibid. 41-42.
[376] Cf. Reich and Bery 330.
[377] Cf. ibid. 330.

drugs – as TRIPS only applied to ARVs patented after 1994 – and it dared to use the agreement's safeguards such as compulsory licensing sensibly and self-assertively.[378] Although the agreement suggests that it "does not and should not prevent Members from taking measures to protect public health,"[379] the usage of this particular safeguard turned out to be used differently from its original conception. Compulsory licensing had soon evolved into a means to put pressure on countries. Apart from the point that TRIPS is often criticized for its bureaucratic deterrence, opponents often argue that countries with big pharmaceutical industries threaten with economic sanctions.[380] And indeed, certain countries such as Thailand bowed to economic pressure in the aftermath of the economic crisis and did not question the concessions made by the US in terms of market monopolies and anti-competitive sales practices.[381] First, the Thai Safety Monitoring Programme had been used to provide protection and monopolies to American drug companies and second, only after demonstrations in Bangkok and the US, Thailand dared to ignore US warnings against the use of compulsory licensing.[382] Yet, threatening with compulsory licensing is a vital part of Brazil's success of pushing down prices effectively. Pharmaceutical companies that were already part of the Brazilian market chose to offer cheaper prices rather than completely vanish from the market with this respective product.[383] Brazil often faced economic sanctions, but refused to bow. This confident behaviour allowed a persistent and effective use of compulsory licensing, which successfully drove down prices in Brazil for patented drugs. Yet, many countries can economically not afford the resistance Brazil met international (i.e. mainly American) pressure with. In the end, TRIPS did not prevent Brazil from 'taking measures to protect public health,' as the agreement suggested. Brazil only chose a rather different reading than might have been originally intended while still acting within the legal framework. Perhaps it can be said that Brazil constituted the counterweight to the political power play of major pharmaceutical companies and

[378] Cf. Zita Lazzaroni and Jonathan E. Von Kohorn, "Medical Ethics and the Law," 2003, *The AIDS Pandemic: Impact on Science and Society,* Kenneth H. Mayer, H.F. Pizer (California: Elsevier Academic Press, 2005) 506-507.
[379] Cf. World Trade Organization, "Declaration on the TRIPS Agreement and Public Health," http://www.wto.org/english/thewto_e/minist_e/min01_e/mindecl_trips_e.htm (accessed 2 Mar. 2007).
[380] Cf. Novak 1270-1271.
[381] Cf. Tido von Schoen Angerer and Jiraporn Limpananont, "US Pressure on Less-Developed Countries," *The Lancet*, Vol. 358, July 2001, 245, http://www.thelancet.com/journals/lancet/article/PIIS0140673601054320/fulltext (accessed 2 Mar. 2007).
[382] Cf. ibid. 245.
[383] Cf. Lazzaroni and Von Kohorn 507.

their influential lobby. However, Lazzarini and Von Kohorn postulate that wealthier countries, which were opposed to Brazil's efforts to obtain affordable pharmaceuticals should consider that their trade sanctions, maintenance of high market prices and threats against utilizing compulsory licensing can swing back on themselves and the international economy when these countries demand international assistance.[384] Yet, despite its legitimacy, this thesis seems to be based on a rather far-sighted and sensible approach, which does, however, follow the logic of profit, but in a rather indirect way, which might not appear concrete and visible enough for certain companies and countries.

However, the often commended offensive use of compulsory licensing as a negotiating tool and the country's wit to recognize and exploit major companies' desire to remain in the market are not the only ingredients of Brazil's success. Though being a positive example to learn from, various features will make a replication difficult or improbable for poorer nations. Firstly, Brazil had a relatively small HIV prevalence rate of 0.7% in 2000, which decreased to estimated 0.5% in 2005.[385] This figure appears admittedly small and hardly threatening. Therefore, it emphasizes the country's great commitment even more. Simultaneously, it makes one wonder why the country acted so intensely, compared with many other countries that only began to act when their prevalence rates already put the population's existence at danger. But in 1994, Brazil was threatened with projections that foresaw a number of 1.2 million people living with HIV/AIDS in 2000 – and this sinister vision partly drove Brazil's AIDS policy, which succeeded in halving this number.[386] Secondly, Brazil's relatively high income of US$2830 per capita (in 2003) and its already established strong national pharmaceutical industry will hardly be found in many developing nations, but paved the AIDS policy's way in Brazil.[387] Thirdly, the country received three World Bank loans in 1993, 1998 and 2003, altogether worth US$425 million to help finance its huge free ARV programme.[388] It might be added that many countries face difficulties to accept certain loan terms of international financial institutions.

Fourthly, Brazil drew major benefits from a quite peculiar right, integrated in its patent law, which allows the country to produce patented drugs in an emergency

[384] Cf. ibid. 507.
[385] Cf. UNAIDS 2006, 41.
[386] Cf. Lazzaroni and Von Kohorn 506.
[387] Cf. Reich and Bery 330.
[388] Cf. ibid. 330.

situation. Hence, in 2000, government officials decided that if the patent holder fails to start production in Brazil within three years, local generic companies are allowed to produce them instead.[389] The US government complained that this provision in the Brazilian law breached international property rules and did not comply with TRIPS.[390] Yet, the UN Human Rights Commission approved a resolution that secured access to medical drugs during pandemics such as HIV/AIDS, i.e. during health emergencies as enacted in Brazilian patent law. In June 2001, the US retracted the complaint and Brazil agreed to give the US a ten days notice before starting compulsory licensing procedures.[391] Of course, this was a huge success for Brazil and others, too, as the quarrel and the panel between Brazil and the US led to an amendment to TRIPS: in November 2001, the WTO decided at its fourth ministerial conference to allow use of compulsory licensing in cases of national public-health emergencies.[392]

This supported Brazil's law and also its mechanisms and methods to achieve its goal. Many lawsuits were brought upon in the global fight for increased treatment access, often related to property rules and pharmaceutical companies. Almost surprisingly, many of these lawsuits were decided in favour of the rather disadvantaged party as shown in the case of South Africa, Thailand or Brazil. This fact only supports what runs like a thread through the Brazilian success story: the refusal of bowing to intimidation and an unwavering and self-assertive use of legal rights can make the difference in the fight against HIV/AIDS.

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[389] Cf. Haroon Ashraf, "USA and Brazil End Dispute over Essential Drugs," *The Lancet*, Vol. 357, June 2001, 2112, http://www.thelancet.com/journals/lancet/article/PIIS0140673600052442/fulltext (accessed 2 Mar. 2007).

[390] Cf. Georgina Kenyon, "US Withdraws Writ against AIDS Drug Production in Brazil," *The Lancet*, Vol. 1, Sept. 2001, 68, http://www.thelancet.com/journals/laninf/article/PIIS1473309901000482/fulltext (accessed 20 Feb. 2007).

[391] Cf. Haroon Ashraf 2112.

[392] Cf. Jane Galvao, "Access to Antiretroviral Drugs in Brazil," *The Lancet*, Vol. 360, Dec. 2002, 1864, http://www.thelancet.com/journals/lancet/article/PIIS0140673602117752/fulltext (accessed 20 Feb. 2007).

5.5 TRIPS Revisited: The December 2005 Amendment Rectifies an Old Deficiency

The controversy around TRIPS, the WTO, patents and market monopolies is not abating. And admittedly, considering the stark contrast of interests the WTO must reconcile and the attempt to create a balance between the needs of suffering people and pharmaceutical companies, how could it abate? Since the WTO's establishment in 1994 as a result of the Uruguay Round of the trade negotiations in the General Agreement on Tariffs and Trade (GATT), the organization has been the global governing body of the international trade regime.[393] Its efforts to reconcile opposing interests are challenging and often described as a constant balancing act between the parties involved. The WTO's range of advocacy is as broad as interpretations of the organization's true intention and function. Reich and Bery state in 2004: "The WTO sets the legal ground rules for international trade and promotes the objectives of non-discrimination, liberalization of trade barriers, competition, and transparency."[394] But this is only one interpretation. Lazzarini and Von Kohorn seem to have a slightly different impression:

> Likewise, international legislative bodies such as the World Trade Organization (WTO) create treaties meant to protect and promote commerce at the international level. Such treaties, while clearly beneficial to the international business community, can have a drastic economic impact on poorer countries.[395]

However, the dispute of Brazil and the US over the South American country's Article 68 on patent law and the unabating discontent of insufficient treatment access led to an amendment at the fourth WTO ministerial conference in Doha, Qatar, in November 2001.[396] It had been argued that TRIPS safeguards such as compulsory licensing helped countries such as Brazil, South Africa and Thailand to extend its already established local pharmaceutical industry, but put poorer countries at a disadvantage. Compulsory licensing is of no use for least developed countries without pharmaceutical capacities, and parallel importation of patented drugs does not drop prices enough to be affordable for these countries. In 2001, the WTO added the emergency amendment declared in its Declaration on the TRIPS Agreement and Public Health to the law. It stated that "[e]ach member has the right to determine

[393] Cf. Reich and Bery 335.
[394] Ibid. 335.
[395] Lazzaroni and Von Kohorn 506.
[396] Cf. ibid. 506.

what constitutes a national emergency or other circumstances of extreme urgency."[397] But this did not cure the deficiency described. Hence, the WTO stated in the declaration:

> We recognize that WTO Members with insufficient or no manufacturing capacities in the pharmaceutical sector could face difficulties in making effective use of compulsory licensing under the TRIPS Agreement. We instruct the Council for TRIPS to find an expeditious solution to this problem and to report to the General before the end of 2002.[398]

The Doha Declaration further postponed the deadline for the 49 least developed WTO member countries to bring their legislation in compliance with agreement standards from 2006 to 2016 and, moreover, asserted a general priority to public health over intellectual property.[399] However, the dearth of generic import and export remained an old deficiency, which had to be rectified in order to achieve the goal of public health primacy. In Geneva, in August 2003, the member countries agreed to modify the TRIPS provisions relating to compulsory licensing and made the importation of generic drugs produced under compulsory licensing legal.[400] Yet, it was not until December 2005 that the agreement was confirmed as an amendment to TRIPS. Nevertheless, despite this belated, but vital step, the controversy around the amendment was ongoing and probably remains ambivalent. Then WTO director-general, Supachai Panitchpakdi, announced emphatically that "'it proves once and for at all that the organization can handle humanitarian as well as trade concerns.'"[401] Yet, while South Africa, India, Brazil and Thailand were understandably content with the decision, as it will secure economic prosperity of their drug industries, the spokeswoman of the Kenya Coalition for Access to Essential Medicines stated that this would make it difficult for developing nations to promote their own pharmaceutical industries.[402] On the one hand, this is a well-known general problem of importation, but on the other hand, it might also increase dependency of poorer countries on wealthier nations.

One of the biggest American pharmaceutical multinational companies, GlaxoSmithKline, states on the company's web page that it supports the Doha Declaration and "does not believe that the TRIPS Agreement prevents people in the

[397] WTO 2001.
[398] Ibid.
[399] Cf. Reich and Bery 335.
[400] Cf. ibid. 336.
[401] Ibid. 336.
[402] Cf. Novak 1270.

developing world from getting access to medicines."[403] And indeed, despite numerous American efforts to block generic production in recent years in various countries, there are indications of a paradigm shift in multinational pharmaceutical companies. In 2003, South African activist group TAC accused GlaxoSmithKline and German giant corporation Boehringer Ingelheim of anti-competitive sales practices and excessive pricing, which the South African government later agreed to.[404] In December 2003, both companies granted licenses to four South African companies to manufacture or import generic versions of AZT and lamivudine (3TC). Moreover, contrary to standard policies, the two companies charge only 5% royalty fee for sales of the drugs, and the manufacturers are permitted to export the drugs to all 47 sub-Saharan countries.[405] This was surely an unprecedented agreement.

MSF and Oxfam declared in a joint statement that the TRIPS agreement imposes legal, political and economic obstacles and described it in general as "a burdensome system."[406] Indeed, countries appeared to face major difficulties making use of the safeguards. MSF often emphasized that countries needed assistance in employing their rights under TRIPS. Facts seem to underscore this view: Mozambique became the first African country to implement the Doha Declaration. But according to Reich and Bery, prior to Mozambique, no country has made use of compulsory licensing.[407] Yet, changes appeared in recent years. UNAIDS reports that in 2004-2005, the United Nations Development Programme (UNDP) and other partners "assisted 36 African countries to make best use of the flexibilities and safeguards available for accessing essential medications under the WTO's agreement on Trade-Related Aspects of Intellectual Property Rights."[408]

[403] GlaxoSmithKline, "WTO and the TRIPS Agreement," updated 10 Mar. 2006, http://www.gsk.com/responsibility/cr_issue/ip_wto_trips.htm (accessed 2 Mar. 2007).
[404] Cf. Kathleen Nelson, "GSK and Boehringer Agree to Generic AIDS Drugs Deal," *The Lancet*, Vol. 362, Dec. 2003, 2074, http://www.thelancet.com/journals/lancet/article/PIIS0140673603151525/fulltext (accessed 7 Mar. 2007).
[405] Cf. Kathleen Nelson 2074.
[406] Cf. Novak 1270.
[407] Cf. Reich and Bery 337.
[408] UNAIDS 2006, 165.

6. Conclusion

The examinations in this paper have shown that Peter Piot's statement at the XVI International AIDS Conference in Toronto in August 2006, as mentioned in the Introduction, appears to have a daunting legitimacy: the UNAIDS executive director aroused consternation when he stated that we have to plan the next 25 years with HIV/AIDS. In fact, it seems very likely that the disease, despite its already large extent and consequences, is still in its wake.

Sub-Saharan Africa and examples of other impoverished nations have shown what the disease is capable of in terms of substantially changing society, demography and culture in poorer countries. But it does not appear that the epidemic in these regions has reached its peak. On the contrary, if Dejan Loncar and Colin Mathers of the WHO are correct in projecting that by 2030, 6.5 million people will die annually of AIDS, as mentioned in the sub-Saharan chapter (2.2.1.2), then the current devastation is merely the tip of the iceberg in certain regions. Moreover, based on the portrayed mutual relationship (or vicious circle) between poverty and AIDS, the disease will grow exponentially and will make a successful response increasingly challenging and the approach more comprehensive, as the roots of poverty must be fought.

In fact, the examinations in this paper have not only shown how HIV/AIDS impinges on society and culture, but also how social, cultural and political circumstances either attract or reject the virus and its spread. Since HIV/AIDS is the focus of this paper, the impression can be given that the disease is the only problem in certain regions. But it is also a product and result of a far greater range of social problems and suffering. Solutions for deficient situations in impoverished countries are fighting poverty and gender inequity, securing peace and democracy, strengthening political commitment, ensuring better health care and education. All these solutions are proven to decrease the epidemic's impact. These efforts seek to tackle deficiencies that are clearly AIDS-related, but these solutions refer to independent problems that often weigh heavier than the AIDS epidemic in the first place. Moreover, the necessary efforts to rectify these deficiencies can impossibly be undertaken by the AIDS community alone. The fight against HIV/AIDS is dependent on global commitment to fight the problems that provoke high-risk behaviour and increase vulnerability and impact.

If the fight against poverty, AIDS and global inequity includes development aid and intervention of developed countries, which it probably does, then this leads us automatically to the challenge of a culturally adapted and sensitive intervention. Reimer Gronemeyer and people with similar sentiments fear that African culture and integrity will fall victim to increasing western intervention in Africa. And indeed it has been proven that certain African cultural traditions attract the virus and push its spread ahead. They are said to stand in the way of prevention methods that proved efficient in western societies. Among various other differences, scientific thinking and understanding and ratio grossly based on enlightenment appear way more prevalent in European and other developed countries. They needed centuries and millenniums to evolve and massively influenced life here. It must be acknowledged that concepts based on these achievements and characteristics cannot simply be imposed on starkly differing cultures. Hence, solutions must be found that avert growing AIDS crises in Africa while simultaneously preserving the continent's cultural wealth.

Throughout this paper one insight recurred numerously: never before so much has been done to tackle the global disease – but simultaneously, the epidemic has never risen so fast before either. This juxtaposition, these synchronic events do not release hope. It rather appears that the current fight and the current apparently overwhelming and unprecedented efforts result from the insight that the global community has failed to acknowledge the gravity and potential impact of the disease. Now, mammoth undertakings are brought under way to desperately catch up on what had once been short-sightedly neglected. Of course, the global fight against HIV/AIDS will not take benefit from desolation or resignation. And indeed, it remains a given that collaborations, international partnerships, public and private efforts combined have never been so strong, committed and united before. The list of abbreviations and acronyms of this paper not only proves a large quantity of movements, organizations and committed undertakings: the various chapters have demonstrated that an awful lot is done at the moment to change the epidemic's course. The Global Fund to Fight AIDS, Tuberculosis and Malaria, UNAIDS, WHO, PEPFAR, the vaccine and microbicides campaigns, civil society movements like the treatment campaign in South Africa and elsewhere…all fight to decrease the impact of the disease.

Unfortunately, the chapters on microbicides and a vaccine rather sketch a less optimistic picture of future female prevention tools and a possible antidote. As estimated by the GCM (and mentioned in 2.1.2), microbicides might avert 1 300 000 million deaths. But apart from the fact that this sum is enormous, it still represents a small share of infected people. It has been shown that the discovery of a microbicide is a vital step – but undoubtedly not the last one. Apart from approval and financing, delivery and usage remain further obstacles.

The scientific challenges of designing a vaccine have also been portrayed as tremendous and complex due to the virus' viral genetic diversity both within an individual body and around the globe. Clinical trials, drug approval and providing access are equally challenging. But the chapter on intellectual property law, patents and prices also shed a light on the commercial and profit-oriented part of the 'AIDS industry.' There must be a reason that the International AIDS Vaccine Initiative or EuroVac were founded and committed themselves to universal access of a possible vaccine to resource-constrained settings. In other words, the international pressure pharmaceutical companies would face in the case of a vaccine discovery would be enormous and hence reduces the (commercial) incentives for companies to invest grossly in vaccine research. From a profit-oriented view, this makes sense, particularly as those in most desperate need of a vaccine are poor and unprofitable. Of course, one could argue that on the grounds of Chapter Five, generic competition, the relaxation of patents in TRIPS and the massive fall of ARV prices, treatment provision might not be lucrative enough anymore. But this is deceiving. Prices might have fallen to US$144 per patient per year in certain offers and efforts, but the developed world constitutes the major market of treatment for most pharmaceutical companies. Prices will remain high in these parts of the world. Most companies do not depend on a market which merely constituted 1.1% of the global share in 2001, as mentioned in 5.1. Moreover, despite the anti-trust law, it remains unlikely that prices fall in the developed world as they did in developing countries when patents expire after 20 years. And polemically speaking: who knows really if a vaccine is not already developed? Healthy people do not make the pharmaceutical industry prosper. People who are sick and dependent on treatment are vital for this industry's maintenance and prosperity. This may sound terribly cynical. Yet, it is very neutral information and it has certain implications.

Nevertheless, Chapter Five was written when the peak of the controversy over prices and patents was already over. Of course, treatment access is still a considerable obstacle. But after patent relaxation, price reduction and the possibility of producing and importing antiretroviral drugs, other hurdles to increased treatment access must be overcome. Pharmaceutical companies are less to blame – or to be made a scapegoat. This picture has changed. Substantial barriers have been removed. Countries need more assistance in applying TRIPS safeguards, even though legal obstacles constituted far bigger obstacles three or five years ago than they do now. When the number of people living with HIV/AIDS will rise in the years ahead, it will hopefully be due to increased treatment provision and saved lives rather than due to the amount of new infections. Yet, it appears quite likely that both will be the case: the number of people living with HIV/AIDS will rise as projected due to more new infections, and mortality will decrease due to better treatment access. But in general, the starting position for treatment provision has never been that advantageous before. Vital TRIPS amendments have been successfully postponed for a while, but eventually made. Prices are down as much as they can be. The global AIDS community has acknowledged that treatment is possible and also effective in terms of prevention: ARV therapy decreases stigma and discrimination, favours counselling and testing and reduces infectiousness, as the reduction of viral load in HIV-infected people also reduces the grade and risk of transmission. These insights are as evident and widespread as never before – although they are, of course, not evident and widespread enough. The procrastination and intransigence of the South African government have shown how slow insight can proceed.

Another positive aspect that emerges from this paper is the fact that apart from certain models in developed countries, which are not or hardly applicable in resource poor environments, positive models also occurred in developing countries. Botswana's success was vital for many other (sub-Saharan) African countries to convince them that such a demanding and highly complex undertaking such as a comprehensive HIV/AIDS response is actually possible in poorer countries. Brazil, Thailand, Uganda or Botswana proved that it is possible. These models were absent many years in the global fight against HIV/AIDS and their blueprints are now available. It has been explained in the paper why a reproduction or copying is seldom possible, but also why a partial adaptation is feasible, sensitive and commendable. The examples are there – affected countries must 'only' follow suit.

Yet, the South Africa and Botswana Chapter both showed – in two different, contradicting ways – that political commitment substantially decides over mismanagement and failure (South Africa) or efficacy and success (Botswana). A political will can be decisive. But activist campaigns such as the Treatment Action Campaign (TAC) in South Africa or private movements in Brazil and Thailand have shown that people 'on the ground' can make a change. Proofs are the various lawsuits that were predominantly won by campaigners, e.g. in South Africa in the case of MTCTP and treatment provision in prisons. But also people in Thailand and Brazil have pushed the fight against AIDS in their countries tremendously forward. Hence, it can be summarized that a successful response is ideal when it is consistent with government commitment *and* private activism, but at least depends on one of the two. Without governmental or public devotion, chances are minute to bring AIDS epidemics around the globe to a halt. Yet, this situation is not rare and will further fuel the spread and secure its growth and existence.

Admittedly, writing about an issue such as HIV/AIDS without getting emotionally involved is frequently demanding. Several occasions appeared in this paper, when euphemisms had to be used to express something that should have been said more directly, i.e. less scientifically. Words like 'affected' were used instead of 'killed,' expressions like 'inequity' were preferred to 'injustice,' which often appeared more appropriate, 'bewildering' or 'discomforting' have been employed rather than 'infuriating' or 'horrible.' Even the word 'challenge' was often used to describe something that is most likely not to be achieved. However, it can hardly be denied that a lot of hardship is connected with this peculiar sickness and still growing disease.

It would be edifying to know that a successful future global response will make the daunting tone of this paper obsolete and its content only a relic of a dark and bygone age, perhaps something that will be referred to as the 'pre-AIDS vaccine age' in the future?

Although it appears that this kind of thinking is unrealistic, a vision is needed – as urgent as a sea change in global efforts and thinking. Ignorance and indifference will not bring the disease to a halt or reverse. The past showed that already. The only question that remains is: is it realism or pessimism to say that history is doomed to be repeated?

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