Instituto Superior de Ciências do Trabalho e da Empresa

# Transfer of Hospital Engineering Knowhow from Germany to Developing Countries

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Project submitted as partial requirement for the conferral of

Master in International Management

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May 2009

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# List of Abbreviations, Keywords and Classifications

## Keywords

- Hospital
- Public-Private Partnership (PPP)
- Development Aid
- Foreign Trade Support

## JEL Classifications[1]

| | |
|---|---|
| F35 | International Economics/ International Finances/ Foreign Aid |
| O24 | Economic Development/ Development Planning and Policy/ Trade Policy; Factor Movement Policy; Foreign Exchange Policy |

## List of Abbreviations

| | |
|---|---|
| BDI | Bundesverband der Deutschen Industrie (Federation of German Industries) |
| GP | General Practitioner |
| IFC | International Finance Corporation (World Bank Group) |
| IMF | International Monetary Fund |
| P3 | Public-Private Partnership (PPP synonymous) |
| PFI | Private Finance Initiative |
| PPIP | Public-Private Investment Partnerships (PPP synonymous) |
| PPP | Public-Private Partnership |
| SPV | Special Purpose Vehicle |
| UN | United Nations |
| USAID | United States Agency for International Development |
| WHO | World Health Organisation |

Abbreviations only used within a single chapter are not listed.

[1] Journal of Economic Literature Classification System

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## Summary (English)

The paper 'Transfer of Hospital Engineering Knowhow from Germany to Developing Countries' tackles two vital interests of the German government: development aid and foreign trade support. These two areas can complement each other in the field of hospital construction in developing countries. This is very important since hospitals do not only provide and help improve health services but also stabilize local economies by offering employment. Through many positive ties hospitals improve health and welfare on a wide scale and thus work towards the United Nations Millennium Development Goals.

However, governments around the world cannot provide enough resources to ensure the best possible health services. In fact, some can hardly offer basic care. Therefore, the private sector is needed for funding and skills to improve and extend health provision. One approach here is to create public-private partnerships (PPPs) to utilize management methodologies while ensuring integration into the local health system.

Both the concept of PPPs taking over governmental provision and the approach to provide health care through hospitals as development aid are common practice. Yet, the combination of both is rare, so that experience from other sectors has to be adopted to gather lessons learned. The concept is very complex and many risks are involved. Nevertheless, it is a promising approach which undoubtedly will increase access to health care and should therefore be promoted far more than it currently is. Governments need to establish complete frameworks and encourage participation by not only giving support to full projects, but already during experimental stages (e.g. feasibility studies, pilots).

# Summary – Síntese (Portugese)

A tese *'A transferência de conhecimentos de Engenharia de Hospitais da Alemanha, para Países em Desenvolvimento'* aborda dois interesses fundamentais do governo alemão: a ajuda ao desenvolvimento e o apoio ao comércio externo. Estas duas áreas podem complementar-se mutuamente no domínio das construções de hospitais nos países em desenvolvimento. Tal é muito importante, dado que os hospitais não só fornecem e ajudam a melhorar os serviços de saúde, mas também estabilizam as economias locais mediante a oferta de emprego. Os hospitais melhoram a saúde e o bem-estar em larga escala sob muitas formas positivas, ao mesmo tempo que contribuem para atingir as Metas de Desenvolvimento do Milénio definidas pelas Nações Unidas

Contudo, os governos a nível mundial não podem fornecer recursos suficientes para garantir os melhores serviços de saúde possíveis. De facto, alguns governos dificilmente podem oferecer cuidados básicos. Consequentemente, o sector privado é necessário para fornecer o financiamento e as competências necessárias para melhorar e ampliar os serviços fornecidos pelo sistema de saúde. Uma abordagem nesta área será a criação de parcerias público-privadas (PPP) que utilizem metodologias de gestão e simultâneamente assegurem a integração no sistema de saúde local.

Tanto o conceito de PPP's que assumem a prestação de serviços públicos e a abordagem de prestar cuidados de saúde através de hospitais como ajuda ao desenvolvimento, são uma prática habitual. Contudo, a combinação de ambos é rara, pelo que a experiência de outros sectores tem de ser adaptada para recolher os ensinamentos. O conceito é muito complexo e são muitos os riscos envolvidos. No entanto, é uma abordagem prometedora, que sem dúvida vai aumentar o acesso aos cuidados de saúde, pelo que deve ser promovida muito mais do que actualmente é. Os governos precisam de estabelecer programas completos e incentivar à participação, não só apoiando os projectos na sua totalidade, mas também durante as suas fases experimentais (por exemplo, durante os estudos de viabilidade e programas piloto).

## Executive Summary (English)

This paper is part of a research aiming to evaluate possible business and development aid opportunities abroad. It is the comparative analysis part of the project regarding other countries' efforts. The objective is to build a hospital through a private-public partnership and thus stimulate progress in a developing country.

The literature review explains the United Nations Millennium Development Goals and shows how hospitals can contribute to these. The central role of hospitals in the health delivery systems of developing countries is emphasised. Hospitals bring together health care, education and research and thereby also stabilize welfare and future perspectives. Through these functions several of the UN Millennium Development Goals are tackled.
The necessity of private participation is pointed out and the reasons why this is beneficial for both private and public partners are discussed. An investment need of $25-$30 billion by the year 2016 is expected in Africa alone. Since governments are hardly able to provide enough funds for optimal health care coverage, private funds are required. Besides this, hospitals are an excellent point of action for cost optimisation since they are the biggest single matter of expense within health systems.

Cooperation through public-private partnerships (PPPs) is examined and strengths, weaknesses, opportunities and threats are derived from the respective literature. PPPs are a promising way for private participation since they are not only a means of expanding the overall health budget, but also of applying management methodologies. While the concept of PPPs is applied and promoted worldwide in almost all fields of governmental provision, PPPs that provide development aid by constructing hospitals are very rare and consequently experience in this field is not extensive. This can be explained by the fact that this concept is very complex and involves many risks. Many case-specific considerations have to be made. There is very high demand for the governments to establish a suitable legal framework and consistently follow objectives that were agreed on. Even if targets, success and processes are clear and gaugeable, renegotiations are likely to occur.

Results of a methodical analysis are shown. These are based on a research on comparable projects and programmes conducted by a set of selected countries. Lessons learned from these experiences are gathered and summarized. The research confirms that construction and implementation bear many risks, especially concerning schedule and budget. During operation, however, the service quality and the treatment efficiency are at risk.

Both the efforts of the selected countries and their different political constellations are explained. All these countries offer support programmes for executing a project. However, France and the Netherlands alone clearly offer support throughout the whole process, reaching from feasibility studies and bidding support to pilots to full project implementations. Nevertheless, a suitable standard approach does not yet exist. Finally, specific cross-section considerations are made before the conclusion sums up the findings of the research.

Investments into health care in developing countries are necessary. Despite complexity and risk PPPs are a promising way to expand the budget and optimize resource usage. Availability of health services is undoubtedly increased through hospitals and is beneficial in many ways. Donating governments should proceed to establish legal frameworks in order to contain risks.

# Executive Summary - Sumário Executivo (Portugese)

Este trabalho faz parte de uma investigação que tem como objectivo avaliar os possíveis negócios e oportunidades de ajuda ao desenvolvimento, no exterior. Parte do projecto é uma análise comparativa dos esforços de outros países. O objectivo é construir um hospital através de uma parceria público-privada e assim, estimular o progresso de um país em desenvolvimento.

A revisão de literatura explica os Objectivos de Desenvolvimento do Milénio das Nações Unidas e mostra como os hospitais podem contribuir para os mesmos. O papel central dos hospitais, nos sistemas de distribuição de saúde dos países em desenvolvimento, é sublinhado. Os hospitais reúnem os cuidados de saúde, a educação e a investigação, portanto também estabilizam o bem-estar e as perspectivas futuras. Através destas funções, vários dos Objectivos de Desenvolvimento do Milénio das Nações Unidas, são atingidos.

A necessidade da participação privada é assinalada e também são discutidas as razões pelas quais a mesma beneficia tanto os parceiros privados como os públicos. Só em África, existe uma necessidade de investimento de 25 a 30 mil milhões de Dólares até 2016. Dado que os governos dificilmente são capazes de fornecer os fundos suficientes para a cobertura óptima de saúde, são também necessários fundos privados. Além disso, os hospitais são um excelente sector para a optimização de custos, uma vez que são no seu conjunto a maior fonte de despesa para os sistemas de saúde.

A cooperação através de parcerias público-privadas (PPP) são examinadas e os pontos fortes, pontos fracos, oportunidades e ameaças são obtidas a partir da respectiva bibliografia. As PPP são uma forma prometedora para a participação privada, já que não são apenas um meio de aumentar o orçamento global da saúde, mas também são uma maneira para a aplicação de metodologias de gestão. Hoje em dia o conceito de PPP's é aplicado e promovido a nível mundial em quase todos os domínios da actividade governamental, mas as PPP que fornecem ajuda ao desenvolvimento, mediante a construção de hospitais são muito raras, consequentemente a experiência neste campo não é extensa. Isto pode ser explicado pelo facto de que este conceito é muito complexo e envolve muitos riscos. Muitas considerações específicas a cada caso têm de ser feitas. Há uma grande procura para que os governos determinem um quadro jurídico adequado e coerente, e que sigam os objectivos que

foram acordados. Mesmo que as metas e os processos sejam claramente definidos, existe uma grande probabilidade de ocorrência de renegociações. Os resultados de uma análise metódica são exibidos. Os mesmos são baseados em uma investigação sobre projectos comparáveis e programas realizados por um conjunto de países seleccionados. As lições aprendidas com essas experiências são recolhidas e resumidas. A investigação confirma que a construção e implementação implicam muitos riscos, especialmente no cronograma e orçamento. Durante a operação, no entanto, a qualidade do serviço e eficiência do tratamento encontram-se em risco.

Quer os esforços dos países seleccionados, quer os seus diferentes ambientes políticos são explicados. Todos os países oferecem apoio aos programas para a execução de projectos. No entanto, só a França e a Holanda claramente oferecem apoio ao longo de todo o processo, desde estudos de viabilidade e licitação para projectos piloto, até apoio pleno a implementações completas de projectos. Ainda não existe uma abordagem standard adequada. Finalmente, são efectuadas considerações transversais às várias secções, antes da conclusão, a qual faz um resumo dos resultados da investigação.

São necessários investimentos em saúde nos países em desenvolvimento. Apesar da complexidade e dos riscos das PPP, as mesmas são uma forma promissora para ampliar o orçamento e optimizar o uso dos recursos. A disponibilidade de serviços de saúde é sem dúvida aumentada, através de hospitais e benéfica de muitas maneiras. Os governos doadores devem continuar a criar quadros legais, a fim de conter os riscos.

# 1 Introduction

This thesis is a company project. A project description, literature review and research part are included. The project and its deliverables are conducted in German language, the thesis in English.

## 1.1 Project Background

This paper is part of a research, conducted by the Federation of German Industries (BDI), aiming to evaluate possible business and development aid opportunities abroad through transfer of hospital engineering knowhow to developing countries. It is the comparative analysis part of the project regarding other countries' efforts (USA, UK, and NL) and lessons that can be learned from them.

This project is an effort of the Federation of German Industries in cooperation with the German government to help achieve the United Nations Millennium Development Goals, especially in the health sector. The international community has adopted these objectives to establish a framework for international development activities. They align over 190 countries in 10 regions and define over 20 targets and 60 indicators to measure the outcome.[2] The 8 Millennium Goals are:[3]

- Goal 1: Eradicate Extreme Hunger and Poverty
- Goal 2: Achieve Universal Primary Education
- Goal 3: Promote Gender Equality and Empower Women
- Goal 4: Reduce Child Mortality
- Goal 5: Improve Maternal Health
- Goal 6: Combat HIV/AIDS, Malaria and other Diseases
- Goal 7: Ensure Environmental Sustainability
- Goal 8: Develop a Global Partnership for Development

This research project is intended to lead to a development aid programme improving health and thereby working towards goals 5-7 by constructing a public-private partnership (PPP) that

[2] United Nations: The Millennium Development Goals Report 2008, page 4
[3] United Nations: http://www.unmillenniumproject.org/goals/index.htm, accessed 03/01/2009

provides developing countries with hospital services. The terms of reference set up two targets. Firstly, cooperation potential and models (PPP) are to be analysed. Secondly, based on the results, a pilot cooperation project shall be discussed and decided on.
The German government is currently increasing activities through PPPs due to reasons of efficiency. On the one hand the overall mobilised capital considerably increases with private participation. On the other hand efficiency of private services is considered much higher due to several reasons, such as autonomy, transparency, management methodology and market orientation.[4] These reasons are analysed in detail in the literature review chapter.
Across developing countries the private sector plays a major role in the provision of health services. They finance projects, and manage the service provision and represent an essential share of the overall national health expenditures. Thus, governments support public-private partnerships more and more in order to increase efficiency and availability of health care.[5]

## 1.2 Project Team

The survey team consists of three members: Professor Jürgen Janovsky, who leads the team, Benedikt Simon, who manages the project, and Simon Hog, who takes part in the research concerning the experience of other countries (USA, NL and UK).
The steering committee of the project consists of Dr. Uwe Schmidt (Director Development Policy, BDI), Dr. Wolfgang Bichmann (KfW), Edward Oosterman (Helm AG) and is chaired by Dr. Robert Gaertner (EPOS Health Management GmbH). Furthermore, several companies interested in this field also take part in gathering requirements and opinions.

[4] KfW: Einführungsseminar PPP, 2008
[5] IFC: http://www.ifc.org/ifcext/che.nsf/content/health_home, accessed 16/01/2009

# 2 Literature Review

The literature review is complementary to the project research to help understand the necessity and the focus of the project. The first part shows the impact of hospitals on the developing world and the second part explains the concept of PPPs.

## 2.1 The Role of Hospitals in the Health Systems of Developing Countries

This chapter gives an overview of the UN Millennium Development Goals, the health delivery systems as well as the role hospitals play in them and thus points out their importance, especially with regard to the Millennium Development Goals.

### 2.1.1 Millennium Development Goals

This chapter is based on the UN MDG Report 2008[6] and shows objectives and up-to-date success.

In September 2000, the member states of the United Nations agreed upon eight goals in the field of poverty, human rights, health, environmental protection and international cooperation. Most of these goals are to be achieved by the year 2015. Not only are they development objectives, but they also represent universally accepted human values and rights.
The international community is facing a challenge to achieve these goals, especially due to recent environmental shifts: The global food security crisis increases hunger, global warming complicates crop growing and the global economic slowdown we are facing - due to the recent financial crisis - increases poverty to a large extent. The international community cannot absolve itself from being involved in the emergence of these issues. All effects are at least partly caused by missing or flawed international regulations.

MDG 1: Eradicate Extreme Poverty and Hunger
One sub-target here is to halve the proportion of people with an income below $1 a day. This particular poverty has continuously decreased since 2007 due to steady economic growth. However, this statistic is inaccurate since the economic growth can mainly be contributed to

[6] United Nations: The Millennium Development Goals Report, 2008, page 3

the extraordinary economic success of parts of Asia. This shows that other developing regions have not made significant progress in this field.
Achieving employment for all people is another target which is also necessary to reduce poverty. The optimal employment rate varies from country to country due to the level of industrialisation and gender equality rules. This makes full employment hard to define. Especially in times of an economic crisis this target is still a long way off and many jobs offered do not relieve poverty since wages are too low. Nevertheless, progress has been made in almost all regions concerning the reduction of extreme poverty, even though the level of progress differs greatly from region to region.
The third target is to halve the proportion of people suffering from hunger. Here, progress is facing a backlash due to the worldwide food crisis. This crisis can be contributed to rising food prices caused by changing demands (e.g. expanding population, crops for biofuel, inappropriate policies and subsidies in developed countries). It is becoming increasingly hard for poor people to afford sufficient food.

MDG 2: Achieve Universal Primary Education
Everywhere in the world boys and girls are to receive primary education. Due to strong dedication and targeted investments a widespread progress has already been achieved in this field. Almost all regions exceed a 90 percent ratio and despite an increasing number of children, the number of those out of school has decreased. Only Sub-Saharan Africa is far behind with a ratio of 71 percent.

MDG 3: Promote Gender Equality and Empower Women
This target is to be reached by eliminating gender disparity in education. Strong progress has already been made, but still, in some regions, the percentage of girls attending primary school is 10 percent lower than that of boys. As far as secondary education is concerned, girls surpass boys since the latter often already start work. Furthermore, even though employment opportunities for women have increased, most work in vulnerable positions (own-account, unpaid family work, part-time, seasonal or short-term). This leaves them without security, power and increased income.

MDG 4: Reduce Child Mortality
Despite progress, millions of children under the age of five die every year. The leading causes of childhood deaths are pneumonia, diarrhoea, malaria and measles. Compared to

industrialized countries four times as many children below the age of five die in Eastern Asia, Latin America and the Caribbean and thirteen times as many die in Sub-Saharan Africa. Rates are higher in rural and poor areas as well as where mothers lack basic education.

MDG 5: Improve Maternal Health

The target is to reduce the maternal mortality ratio. Little progress has been made in this field in Sub-Saharan Africa and Southern Asia. Adequate medical supervision is necessary to fight maternal mortality. Yet, skilled health care workers were only present in less than 50 percent of the deliveries in both regions.

Achieving universal access to reproductive health is another target. Prevention of adolescent pregnancy is one key to tackle this issue, as young mothers and their children are exposed to a higher death risk and are also hindered from receiving education. In some regions of the world the need for family planning is not yet met.

MDG 6: Combat HIV/AIDS, Malaria and other Diseases

Halting and reversing the spread of HIV/AIDS is one target. Small victories have already been achieved as a result of improvements in prevention programmes. The number of new infections has declined. Also, the number of deaths from AIDS has declined, but this is due to the fact that AIDS patients now have a higher life expectancy due to pharmaceutical supplies.

Another target is to put a halt to and reverse the spreading of malaria and other diseases. The main approach to tackle this is the increasing usage of insecticide-treated mosquito nets. As far as the treatment of malaria is concerned there has however been less progress since the availability of treatments and pharmaceuticals has not expanded extensively since the year 2000.

The percentage of people suffering from tuberculosis has continuously decreased in 2004 so that this target is very likely to be met.

MDG 7: Ensure Environmental Sustainability

The first target here is the integration of principles of sustainable development in country policies and programmes. Based on the presumption that released carbon dioxide is the main reason for the climate change, agreements like the Kyoto Protocol are a starting-point. Furthermore, the consumption of all ozone depleting substances and chlorofluorocarbons strongly decreased.

Another target is to reduce the rate of biodiversity loss. Due to this, land and marine protection has been expanded successfully. Still, it has to be managed effectively for the conservation of existing species.
A further target is to halve the proportion of population that has no sustainable access to drinking water and basic sanitation. Since water usage has increased by twice the rate of the global population, this threat can become severe in the future. 1.6 billion people already live in areas of economic water scarcity.
Achieving significant improvements for people living in slums is the final sustainability target. Four characteristics define slum conditions: lack of improved sanitation, lack of water facilities, durable housing and sufficient living area. In many regions only one of these is missing but some places lack two or more of these characteristics and can therefore hardly be considered humane. A lot of improvements still have to be made in this field.

MDG 8: Develop a Global Partnership for Development
Here, the target is to address special needs of the least developed countries, landlocked countries and small islands developing states. Since 2005 ODA from around the world has continued to drop. Some single countries as well as NGOs and the private sector try to compensate. Overall, development assistance will still have to double to fulfil the set targets.
To further develop open, rule-based, predictable, non-discriminating trading and financial systems is another target. In these areas further improvements have to be made too. The target of dealing comprehensively with the debts of developing countries has continued to succeed. Also, the cooperation with pharmaceutical companies to provide access to affordable essential drugs in developing countries has increased availability. But still, availability and high prices are access barriers in many regions.
Another target is to make available the benefits of new technologies, especially information and communications in cooperation with the private sector. The number of telephone lines, internet connections and mobile phones has been increased successfully even though prices are still high compared to the level of income.

Summarizing the success midway, the strong commitment of governments, NGOs and the private sector to the MDGs is the most important achievement. In the last 50 years the international community has not worked together as closely as it does today and some of the targets are expected to be fulfilled by 2015. For instance, primary school access, gender parity in primary education, death from measles and malaria prevention have already been very

successful. Some targets like halving absolute poverty are still within reach. Other targets are less likely to be reached: In Sub-Saharan Africa many people are still very poor, many children in developing countries are considered under weight, gender equality is not likely in all fields, many mothers and children still die during birth and carbon dioxide emissions have continued to increase.

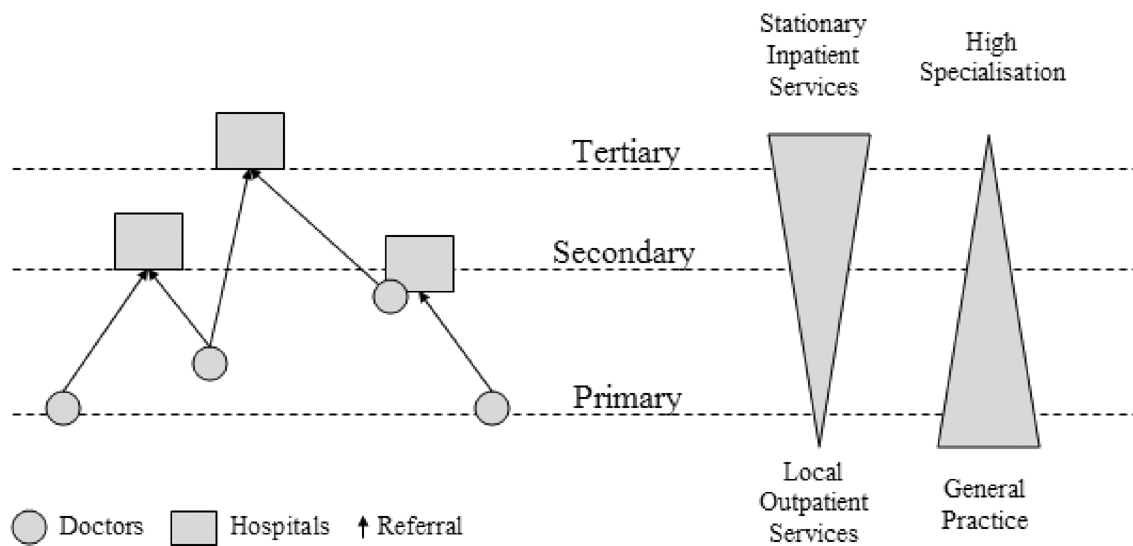
### 2.1.2 Hospital Functions

Health delivery systems around the world are most commonly based on a three-stage-system. This system is considered the most effective and practical and is therefore also applied in developing countries.

Primary care is the first stage in the treatment of patients. This is provided by a general practitioner (GP) who is the first health professional who has contact with the patients and treats minor illnesses and injuries himself. Primary care can also be provided by hospital ambulances, school doctors or company doctors. Secondary care is usually provided by hospitals offering specialised treatments. Hospitals have access to resources GPs usually cannot provide, such as laboratories, specialised equipment and staff. Tertiary care providers are highly specialised service centres (hospitals) for very specific treatments. These are usually competence centres applying the most up-to-date technologies (e.g. radiation or trauma centres).

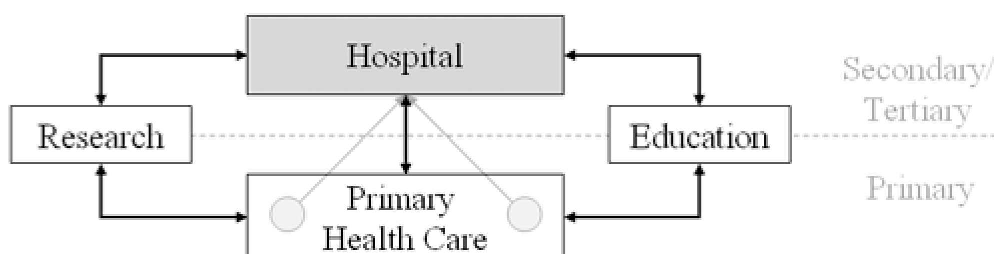
Patients are usually referred to secondary and tertiary centres by their GP. In some cases though, centres cannot be clearly linked to one of the levels of care since this depends on the respective departments or health services offered by a centre (e.g. secondary care centres offering tertiary care services like radiotherapy).

**Figure 1: Health Care Delivery System**




Hospitals typically fulfil more tasks than the mere treatment of patients. Sometimes they offer non-related services like real estate outsourcing or others, depending on the available assets and financing possibilities. Furthermore, the main business of health care exceeds the treatment of patients. Hospitals bundle treatment, education, scientific research and development and are therefore multipliers of positive effects.

**Figure 2: Hospital Involvements**




The provision of education is a very important service hospitals generally offer. Naturally, a lot of staff needs to be trained (e.g. attendants, health personnel, pharmacists and technicians). Furthermore, local doctors and nurses can, for instance, benefit from seminars offered by the hospitals. As a result, local knowledge and welfare are strengthened. This, in turn, reduces fluctuation in manpower.

Another important function of hospitals is the conduction of scientific research and development. In hospitals scientists meet and research local issues (e.g. research into diseases which only exist in that specific area). Hospitals offer the infrastructure necessary for research and also enable a knowledge exchange. Through hospitals in form of PPPs – and the

international networks of the partnering parties – the knowledge exchange would be boosted. Research results would highly increase the hospitals' reputation and improve treatment quality. By offering an attractive working environment this particular research function of hospitals also encourages doctors to stay or come back after having worked abroad.
The main purpose fulfilled by hospitals, namely the treatment of patients, does not only improve health provision on the secondary (or tertiary) level, but also on the primary level. On the one hand hospitals can offer management support (e.g. consultancy, education, coordination, planning, monitoring, and supervision) for the primary level and can improve the availability of pharmaceuticals. On the other hand hospitals relieve the primary level by taking on complicated and time consuming cases.

In countries all over the world, hospitals make up for the largest segment of health spending. As a consequence, all health delivery systems should primarily focus on cost control and the creation of efficiencies in hospital care.[7] These actions have the potential to significantly improve the effectiveness of the overall health budget.

Hospitals have many positive ties. A local community can strongly benefit from the establishment of a new economic driver. Furthermore, hospitals are the biggest single matter of expense within most health systems. This makes them an optimal starting point for applying management methodology and skills to optimize resource usage.

### 2.1.3 How Hospitals Can Tackle the MDG

The UN Millennium Development Goals concern different goals in development aid. Hospitals directly tackle three of these goals and have positive side effects on some of the others as well.

> "First, the [Millennium Development] goals place health firmly at the centre of the development agenda. Second, the goals make inter-sectoral collaboration a prerequisite for success. They attack the root causes of poverty and acknowledge that these causes interact. Third, by making better health a poverty reduction strategy, the

[7] Wilton Park Conference 909, Background papers: Matthias Loening, Global Trends in Health Care Public-Private Partnerships, 2008, page 2

goals move the health sector from a mere consumer of resources to a producer of economic gains."[8]

The first goal hospitals are directly involved with is reducing child mortality (MDG 4). The leading causes of childhood deaths are pneumonia, diarrhoea, malaria and measles. As far as pneumonia is concerned, a lacking health infrastructure is a main cause of death. Highly trained medical personnel and functioning pharmaceutical provision through hospitals would reduce mortality rates. Hospitals need to be equipped with laboratories and suitable medical diagnostic instruments. Measles, for instance, can be prevented at low cost through immunization. In areas that have access to hospital infrastructure immunisation rates are the highest.[9] Furthermore, the WHO generally recommends integration of immunisation programmes into hospital infrastructure. This is because a second vaccination is necessary and local institutions can better follow up on these treatments. The above examples of pneumonia and measles illustrate that hospitals can strongly contribute to the reduction of child mortality in developing countries.

Improving maternal health (MDG 5) is the second goal hospitals directly approach. Increased attention on delivering mothers has to be given especially during pregnancy, birth and the following six weeks. The likeliness to die within this time is 300 times higher in Sub-Saharan Africa than in industrialized countries.[10] The key to tackle this is offering assistance at birth. Hospitals following German guidelines provide for a doctor and an assistant (nurse or midwife) to be present at birth and offer the necessary equipment. Complications which might lead to death can therefore be detected and avoided. Furthermore, services before and after birth can be centrally coordinated and thereby increase health of mother and child.

The combat of HIV/AIDS, malaria and other diseases (MDG 6) is the third goal directly tackled by hospitals. One of the most common ways of transferring HIV/AIDS is from mother to child during a Caesarean section. This procedure can only be processed properly in hospitals and is therefore one of the most effective ways to combat new infections.[11] Besides

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[8] Dr. Margaret Chan, Director-General of the World Health Organization, Buenos Aires, 16/08/2007, http://www.who.int/dg/speeches/2007/20070816_argentina/en/print.html

[9] Datar, Mukherji, Sood: Health infrastructure & immunization coverage in rural India. In: Indian Journal of Medical Research, Vol. 125, January 2007, page 31-42

[10] United Nations: The Millennium Development Goals Report, 2008, page 24

[11] Foster, Lyall: Preventing mother-to-child transmission of HIV-1. In: Paediatrics and Child Health, Vol. 17, 2007, page 126-131

fighting the transfer of HIV/AIDS, long-term therapies are necessary. Yet, therapy centres only exist in some places and are either non-existent or ineffective in others. Another challenge that must be faced is the provision of pharmaceuticals which are needed for prevention as well as for therapy. In many countries pharmaceuticals are hard to get. Nevertheless, some countries like Brazil and Thailand successfully provide these pharmaceuticals free of charge.[12]

Malaria is another disease that can be prevented by the use of pharmaceuticals. According to the UN report prevention efforts are successful but the treatment of infections is not. This is because the provision of pharmaceuticals is not stable. The World Bank speaks of issues of inefficiency, transparency and corruption within the process chain.[13] Hospitals functioning as central platforms can coordinate and thereby stabilize the provision of pharmaceuticals internally (within hospitals) and externally (as hub to the primary care).

To sum it up, the influence of hospitals on fighting diseases is mainly through diagnosis, treatment and provision of pharmaceuticals. Thus, many diseases can be easily treated and local health can strongly improve.

Besides the goals directly tackled, positive side effects on other MDGs can be deducted. The most obvious effect is that poverty is reduced by providing employment and business opportunities. This is especially important since unemployment is a main cause of poverty and hunger.[14] Here, hospitals do not only help by providing income, but they also reduce income losses resulting from illnesses. Most illnesses create two financial problems: They generate costs (e.g. for treatments and pharmaceuticals) and at the same time prevent patients from working (income losses). Especially in poor regions most people work in informal jobs and have to face these financial problems without having any security (e.g. insurance).[15] Hospitals reduce these losses by preventing illnesses, providing treatments and offering income opportunities.

The provision of employment and business opportunities is also a key to the side effects on primary education (MDG 2) and gender equality (MDG 3). Where parents are not able to provide enough income, children have to support them by working themselves. This keeps

[12] McCoy: Expanding Access to Antiretroviral Therapy in Sub-Saharan Africa: Avoiding the Pitfalls and Dangers, Capitalizing on the Opportunities. In: American Journal of Public Health, Vol. 95, 2005, page 18-22

[13] Cohen; Montoya: Using Technology to Fight Corruption in Pharmaceutical Purchasing: Lessons Learned from the Chilean Experience, 2005

[14] United Nations: The Millennium Development Goals Report, 2008, page 6-11

[15] McInryre: What are the economic consequences for households of illness and of paying for health care in low- and middle-income country contexts? In: Social Science & Medicine, Vol. 62 (4), 2006, page 858-865

them out of school and without education their future prospects can hardly be improved. A strong correlation between the level of income and the ratio of children attending school proves this.[16] As far as gender equality is concerned, it can be stated that the health sector employs more women than men (both in developing and developed countries).[17] Through this, hospitals strengthen the role of women in society.

Hospitals can be a key to most of the MDGs through the many ties they have to the local society. All the effects are not only therapeutic but also preventive and therefore sustainable.

### 2.1.4 The Need for Private Participation

Private partners are very important in providing health care. In Africa about 60 percent of health care financing comes from private sources and 50 percent of health expenditure goes there. Additionally, the vast majority of poor people in Africa, both urban and rural, rely on private health care.

The IFC (International Finance Corporation) states that both building and improvement of the sector's physical assets offer the biggest individual investment opportunities for private parties. An estimated demand of 550,000–650,000 additional hospital beds is expected. In addition to the number of graduates from medical colleges and training institutions an extra 90,000 physicians, 500,000 nurses, and 300,000 community health workers will be needed. There will also be a strong demand for better distribution and retail systems as well as for pharmaceutical and medical supply production facilities.

In order to meet the demand between today and 2016 new investments of about $25-$30 billion will be required. It is highly probable that $11-$20 billion will be provided by the private sector.[18]

The involvement of private partners has been increasing worldwide since the 1990s. This can be seen by comparing the flows of ODA (public) and FDI (private) to developing countries:

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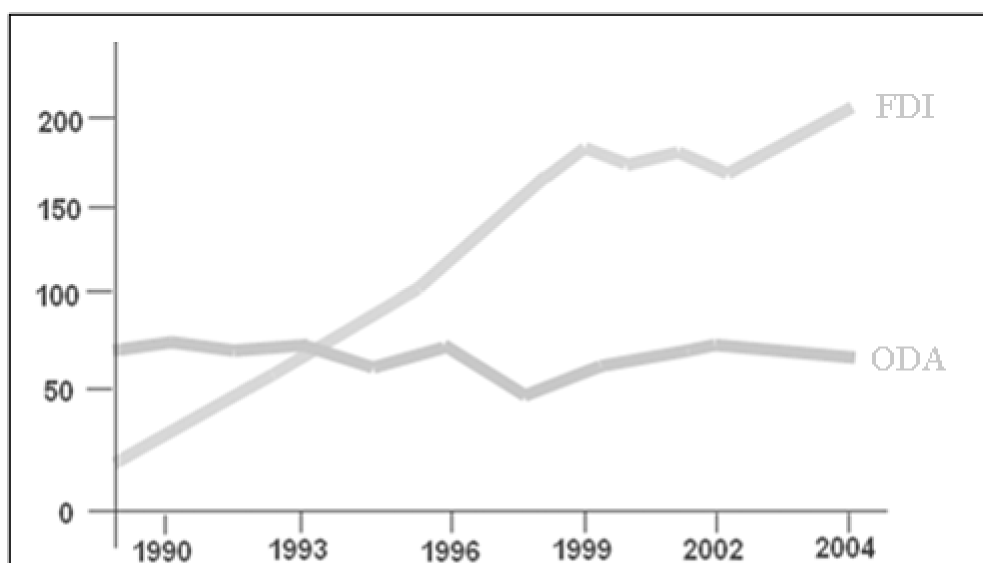
[16] Ersado: Child Labor and Schooling decisions in Urban and Rural Areas: Comparative Evidence from Nepal, Peru, and Zimbabwe. In: World Development, Vol. 33( 3), 2005, page 455-480

[17] Tawfik, Kinoti: The impact of HIV/AIDS on the health workforce in developing countries. Background paper WHO, 2006

[18] IFC (World Bank Group): The Business of Health in Africa, Partnering with the Private Sector to Improve People's Lives, 2007, page iii, ix, xi, 4

**Figure 3: FDI and ODA in Developing Countries in Billion $US[19]**




Overall, private partners have been playing a major role in the provision of health care. Private financial participation has been bigger than public financial participation for about 15 years now. The increased and lasting participation implies that the companies thereby succeed in reaching their goals, which in turn attracts new participants.

## 2.2 PPP for Constructing and Operating Hospital Projects

Although definitions of PPPs vary in literature and use, they have certain similarities. This chapter consolidates the extensive literature research in a structured way and identifies requirements towards the project objective.

### 2.2.1 Motivation for Private and Public Partners

Almost every country's health care provision includes private partners. Even in countries in which care is publicly provided, inputs like pharmaceuticals and support services are sourced from the private sector.[20]

Public sector decision makers are now considering which services they should provide themselves and which they can contract out. This is comparable to the outsourcing decisions of private companies. Many governments have already applied this concept to provide roads,

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[19] Lunkenheimer: Direktinvestitionen in Entwicklungsländern, AEG Jahrestagung 2005, Köln, 2005

[20] McKee, Edwards, Atun: Public-private partnerships for hospitals, Bulletin of the World Health Organization 2006; 84:890-896, page 1

bridges, hospitals, airport terminals, schools, prisons, passenger rail services (heavy and light rail), and water services.[21]

Public-private partnerships can range from solely delivering materials to provision of health care services of all sorts to a whole region. PPPs are applied in almost all fields of typical governmental provision which further increases complexity and variety. PPPs are a means of increasing service offerings through free market forces as well as managerial methodologies and they also expand the investment volume to fulfil increasing demand around the world.

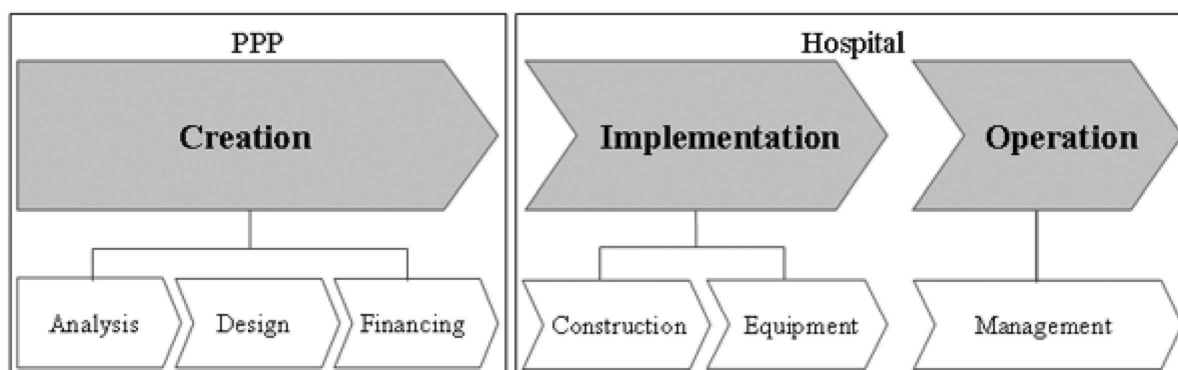
On the other hand private partners active in the health sector can have a strategic motivation to address this topic. In general, companies seek to expand their business and exploit opportunities. Apart from that, market trends suggest a strategic reorientation. One obvious trend nowadays is the decreasing product lifetime in the health sector due to vast innovations in technical equipment, medical technology and treatment processing. These shorten the payback period for the high development costs. The target countries, however, still lack the basic provision, which is already considered outdated in developed countries. So the equipment and technology may still be adequate and profitable since the product lifetime can be extended.

Another notable effect on actively developing markets is the decrease of market participants. This effect can be seen among automobile manufacturers or internet related companies, for example. From originally dozens or hundreds of providers only the most successful survive and take over others, even though there is little doubt that the overall market size will increase. This makes competing parties think about future markets and possibilities for strategic diversification.

Hereby many companies along the value chain are aiming to expand to operational functions since knowledge has been acquired as side effect of their traditional business operations. In addition to this, typical market development stages predict a more modular service or product offering since companies expand forwards or backwards on the value chain. An increased competition is therefore to be expected for the operational aspects.

[21] De Bettignies, Ross: The Economics of Public-Private Partnerships in Canadian Public Policy – Analyse de Politiques, No.2 2004, page 1,4

**Figure 4: Value Chain of Hospital PPPs**




### 2.2.2 Privatization Considerations

Due to the recent financial crisis governments around the world are investing in private banks to stabilize the markets, which is a form of nationalization. These actions are causing a public debate about benefits and risks of governmental ownership. Just as controversial is the issue of private provision of governmentally controlled goods like infrastructure or health where the free market theory would usually fail.

According to the IMF private ownership is to be preferred where competitive market prices can be established. This is due to the private sector's market-oriented drive to sell goods and services at a price which consumers are willing to pay and thereby still make profits. Nevertheless, governmental provision can be necessary due to market failures like natural monopoly or externalities. This type of provision, however, cannot be similarly market-oriented (so-called government failure). PPPs try to combine the strengths of both public and private sector to deal with market failure and minimize the risk of government failure at the same time.

When governments provide a certain service, a trade-off between quality and efficiency usually has to be made. Though they are capable of achieving desired quality standards, they may have difficulties containing costs at the same time.

The private sector can benefit from its better management skills and capacity for innovation in order to reduce costs – though possibly at the expense of service quality.

To make private provision feasible governments have to write fully specified, enforceable contracts with the private counterparts. This requires markets where the quality of services can clearly be identified and translated into measurable output indicators. Only then, governments can enter into a contract. This contract can link service payments to monitor able

service delivery. This constraint recommends application to markets where substantial change in service requirements is not to be expected and technical progress will not completely change the mode of service provision.
If service quality is non-contractible and the governments cannot write complete contracts, PPPs are less applicable. This is, for example, the case with national defence, public law and order, or diplomatic missions. However, these services contain contractible elements such as building and maintaining military bases, police stations, courts and embassies, which are candidates for PPPs.
Even if service quality, or elements of it, are non-contractible, the normal presumption should probably be that private ownership is to be favoured due to its potential efficiency benefits.

Both public and private provision bear risks and before shifting the provision of any kind of service to private providers, potential risks and benefits have to be considered. An essential constraint is that service quality has to be measurable so that monitoring and payment are possible.

### 2.2.3 History and Status of PPPs in Health Provision

Private provision of public services has a long tradition, particularly in major infrastructure projects in transport as well as in utilities provision. In the 19th century, private partners played an essential role in the development of these services. Due to market failure, however, many projects were taken into public ownership during the post-war period. During the 1980s, social movements demanded a reduction of governmental power and private service provision became more widespread. Nevertheless, comprehensive privatization was not applied to the health sector due to market failure. In order to still enable private provision, purchasers and providers were separated within the public sector to create quasi-markets. Then health care delivery was shifted out of the public sector in order to increase value for money, innovation and responsiveness to customers.[22]

In recent years, private for-profit organizations have started to realize that their role in society involves more than merely providing products and gaining profits. Companies understand that, among others, public health is important for their immediate and long-term objectives.[23]

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[22] McKee, Edwards, Atun: Public-private partnerships for hospitals, Bulletin of the World Health Organization 2006, Definition of the BC Ministry of Finance.; 84:890-896, page 1
[23] Reich: Private- Public Partnerships for Public Health, Harvard University Press, 2002, page VII

Companies nowadays call this 'corporate social responsibility' - it means that besides health, other external effects and targets (e.g. environmental or social) of companies are reported. Because of this new management of external effects even non-health related companies are becoming interested in supporting health.
Governments on the other hand are also seeking stronger private participation because they cannot stem the increasing health care demands alone, neither financially nor organisationally.

Even though there are many PPPs involved in health related development aid, only little experience has been gained in the area of building and operating hospitals according to the applied definition of PPPs (chapter 2.2.4). The Initiative on Public-Private Partnerships for Health (IPPPH)[24] categorizes ten focus fields of health related PPPs of which only one includes hospitals, the others being in development and provision of pharmaceuticals. This shows the minor share of hospital PPPs compared to the overall health sector.

Different economic movements over the last centuries have brought about a change in the influence of private provision. Most likely these movements will proceed to develop and will therefore require a high level of flexibility from PPP partners. Nowadays, global leaders are largely supporting private service provision.

### 2.2.4 Definition

> "Public-private partnerships (P3s) are contractual arrangements between government and a private party for the provision of assets and the delivery of services that have been traditionally provided by the public sector."[25]

PPPs consist of at least one private and one public party but can also include several of each. NGOs and private foundations play a special role since they are private (lacking institutional power) but usually represent a public interest.

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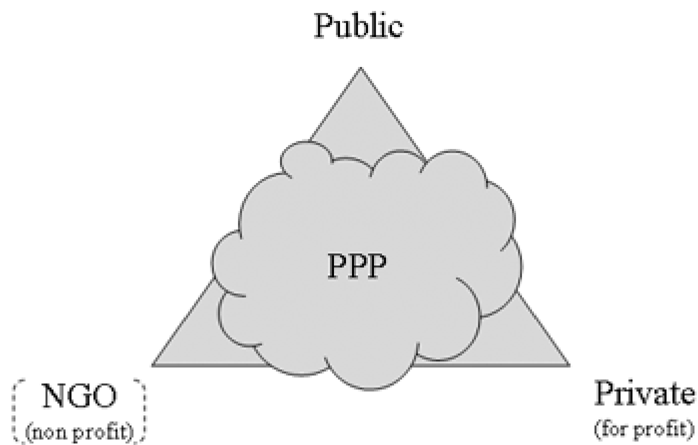
[24] IPPPH online: http://ippph.org/, accessed 16/01/2009
[25] De Bettignies, Ross: The Economics of Public-Private Partnerships in Canadian Public Policy – Analyse de Politiques, No.2 2004, page 2

**Figure 5: PPP Parties**



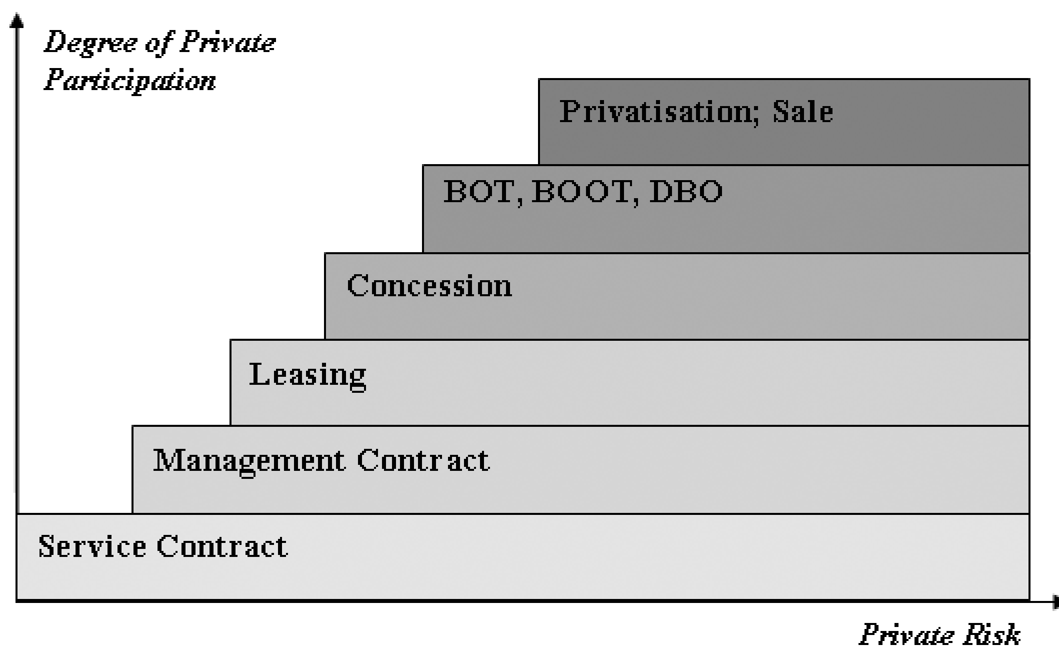

Besides this representative definition there are two other characteristics that further define the field of public-private projects according to De Bettignies and Ross:[26]

- The sharing of decision-making authority, which is in contrast to normal public as well as private provision models.
- The sharing of rewards and risks, which is necessary if the private sector is to be involved voluntarily.

Different types of public-private cooperation can therefore be distinguished by these two characteristics of participation and risk. In the following graph the two axes represent the two characteristics and the different types of public-private cooperation are arranged accordingly.

[26] De Bettignies, Ross: The Economics of Public-Private Partnerships in Canadian Public Policy – Analyse de Politiques, No.2 2004, page 2

**Figure 6: Cooperation Types in Participation and Risk**[27]




According to De Bettignies and Ross an appropriate sharing of risks is a major difficulty in the complex development process of PPPs. Incentives and benefits for private partners have to suit the extent to which partners are exposed to risks. Furthermore, private partners should be able to measure and minimize these risks since immeasurable risks cannot be transferred to insurance companies and are therefore hard to pass on.[28]

The time frames of the different cooperation types and the degree of private participation go hand in hand. While service contracts may last for one or two years, concessions typically last for 20 to 30 years while the degree of private participation increases correspondingly.

The following table shows which project elements are typically managed by which partner, according to the KfW.

[27] KfW: Einführungsseminar PPP in der FZ, Frankfurt ,2008, slide 14
[28] De Bettignies, Ross: The Economics of Public-Private Partnerships in Canadian Public Policy – Analyse de Politiques, No.2 2004, page 5

**Table 1: PPP Types and Characteristics**[29]

| | Asset Ownership | Operation | Investments | Commercial Risk | Duration |
|---|---|---|---|---|---|
| Service Contract | public | public and private | public | public | 1-2 years |
| Management Contract | public | private | public | public | 3-5 years |
| Lease | public | private | public | public and private | 8-15 years |
| Concession | public | private | private | private | 25-30 years |
| Build -Operate - Transfer (BOT) | public and private | private | private | private | 20-30 years |
| Privatisation/ Sale | private | private | private | private | unlimited |

Service Contracts as well as Management Contracts are based on a clear governmental ownership where only the management is provided through a private party. Lease and Concession arrangements are also based on governmental ownership. They do not, however, only transfer management responsibility to the private party but also asset maintenance and investment financing. In Build-Operate-Transfer (BOT) and Privatisation/Sale projects ownership and rights belong to the private sector. In the case of BOT ownership will be transferred to the public authority at a fixed time.[30]

The World Bank[31] offers a more detailed and universal scheme which does not state the contract duration though. According to the World Bank, PPP types can be put into a scheme of management elements. These types can be represented through abbreviations, where B stands for ‘build’ or ‘buy’, C for ‘construct’, D for ‘design’ or ‘develop’, F for ‘finance’, L for ‘lease’, M for ‘manage’, O for ‘operate’ or ‘own’ and T for transfer.

In one group of PPPs the private sector designs, builds, owns, develops, operates and manages the assets without being under the obligation to transfer the ownership to the government. Examples within this group are: build-own-operate (BOO), build-develop-operate (BDO) and design-construct-manage-finance (DCMF), all variants of the common design-build-finance-operate (DBFO) type.

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[29] KfW: Einführungsseminar PPP in der FZ, Frankfurt ,2008, slide 15

[30] Energy and Mining Sector Board (World Bank Group), Discussion Paper No.19: Reforming Power Markets in Developing Countries: What Have We Learned?, 2006, page 44

[31] Fiscal Affairs Department (World Bank): Public-private Partnerships, 2004, page 7, 8

In a second group the private partners buy or lease existing assets from the government and renovate, modernize or expand these before managing the operations. As in the first group there is no obligation to transfer the ownership back to the government. PPP types within this group are: buy-build-operate (BBO), lease-develop-operate (LDO) and the wrap-around addition (WAA), which falls out of the scheme.
In the third group the private partners design, build and operate the assets and transfer them to the government when the contract ends. After this, the private partners often enter into rent or lease agreements for the assets at hand. PPP types within this group are: build-operate-transfer (BOT), build-own-operate-transfer (BOOT), build-rent-own-transfer (BROT), build-lease-operate-transfer (BLOT) and build-transfer-operate (BTO).

The World Bank further states that the most common PPP type is DBFO (design, build, finance, and operate). The authorities determine which services and assets the private partners have to provide. In traditional public provision the private partners only provide parts of assets (e.g. they build or maintain a facility). The difference between these two approaches is not only the size of the projects but also the fact that responsibility is shared to a much greater extent. This bigger involvement of private partners is the basic idea behind the concept of PPPs since this is where efficiency gains can be achieved.

To sum up, following criteria define a PPP:

- Contractual arrangements
- Involvement of public and private parties
- Provision of assets and services traditionally stemmed by the government
- Sharing of decision-making authority
- Sharing of rewards and risks

### 2.2.5 SWOT

In this chapter SWOT is applied to discuss general advantages and disadvantages of PPPs. Here, mainly risks are listed since most of the strengths and opportunities of hospitals are explained in the chapters following chapter 2.1. As a business strategy tool SWOT evaluates strengths, weaknesses, opportunities and threats involved in projects.

Strengths and weaknesses are attributes of PPPs (internal) and opportunities and threats concern the environment of PPPs (external); this environment includes governments even though in this case these are partners in the PPPs.

Internal Strengths are highly dependent on the business case itself, in this case the many positive influences a hospital has. Nevertheless, the general idea behind PPPs is the efficiency gain through private (market-oriented) management. This ability of private management is a clear strength.
Furthermore, the abilities of both participants that concern financing are an important strength. The private sector can be very convincing when it comes to generating private investments and the government can offer a high level of security to reduce interest rates.
For countries that consider entering into partnerships, an external opportunity is a better service provision in future. Governments only have to go one step further than merely purchasing assets by including service delivery and management in the contract. Thus, they can simultaneously address gaps in service infrastructure, staffing, supply chain management and hospital leadership.[32]
Another opportunity PPPs offer is a result of the shared, long-term risk and thereby a shared interest in successful outcomes. By involving private sector partners in the long run PPPs give incentives to achieving performance goals since the returns on investments will flow back over time. This makes it harder for private sector partners to quit the partnership at an early stage.[33]

Another issue, which is opportunity and threat at the same time, is the bypassing of governmental spending controls through creating PPPs. Acquiring private funds can move public investments off the governmental balance sheet and this allows governments to hide information from the public. This can be seen as an opportunity from governmental side. Nevertheless, it is a risk on the public side since governments still bear many financial risks the public is not aware of.[34]

PPPs are usually complex constructs with many parties involved which have different objectives, constraints and abilities. Weaknesses and threats exist in a correspondingly

[32] Report on Wilton Park Conference 909, April 9-11, 2008, page 10
[33] Report on Wilton Park Conference 909, April 9-11, 2008, page 10
[34] Fiscal Affairs Department (World Bank): Public-private Partnerships, 2004, page 15

complex multitude. Many risks or critical success factors can be found in literature. The following paragraphs give an overview.

According to De Bettignies and Ross macroeconomic concerns include issues of ex-ante bidding. Bidding is ex-ante in cases where only one party will enter into a contract and several companies compete for this. On regular markets companies constantly compete and only enduring success keeps participants in the market. Problems can emerge since ex-ante bidding is not based on success, but on the best offer, the best promises, the most experience or even on unfair tenders (e.g. bribes).
Another concern De Bettignies and Ross mention is that renegotiations are likely to occur. This has to be expected due to the incomplete nature of contracts that require constant revision and renegotiations.
Furthermore, it is likely that public sector unions will take an opposing position. They see PPPs as an attempt from the government to shift public sector jobs to the private sector and thus fear lower wages and inferior service quality.[35]

McKee, Edwards and Atun summarize four general risks specifically for hospital PPPs (based of British PFI experience). These risks are focussed on the service delivery itself: cost, quality, flexibility and complexity. Taking into account the UK's PFI experience, the service quality is most likely to be compromised and the facilities are generally more expensive than in traditional procurement (compare 3.3.5).[36]

The IMF points out the five following project risk categories for PPPs: Construction risk includes design problems, building cost exceeding the budget and project delays. Financial risk originates from variability in interest rates, exchange rates and other factors affecting financing costs. Performance risk is related to the availability of an asset as well as the continuity and quality of service provision. Demand risk represents the ongoing need for the provided services. Residual value risk is the risk of an asset's future market price.[37]

The international conference 'Public-Private Investment Partnerships in Health Systems Strengthening' lists following more specific critical success factors: trust between sectors,

[35] De Bettignies, Ross: The Economics of Public-Private Partnerships in Canadian Public Policy – Analyse de Politiques, No.2 2004, page 5
[36] McKee, Edwards, Atun: Public-private partnership for hospitals, page 890-892
[37] Fiscal Affairs Department (World Bank): Public-Private Partnerships, 2004, page 11

political will and feasibility, informed parties, third party assistance, coordination between ministries, integration into larger systematic goals, obtaining buy-ins from the community, data collection and evaluation systems as well as flexible long-term contracts.
Potential weaknesses of PPPs are also listed**: t**ransaction cost, scalability, regulation, lack of typologies, risks for the public sector as well as risks for the private sector.[38]

Reich names the seven C's of strategic collaboration: clarity of purpose, congruency of mission, strategy and values, creation of value, connection with purpose and people, communication between partners, continual learning and the commitment to the partnership.[39]

> "While the potential rewards of PPIPs are significant, PPIPs can be complex and challenging to initiate and manage. Private partners face risks of guaranteeing return on investment in low-income and unstable settings; while public partners face risks of negotiating long-term purchasing agreements with lock-in clauses, and the need to develop strong contract management expertise."[40]

As this quotation accurately sums up, PPPs are complex and risky. Nevertheless, taking into account the many positive involvements as well as the urgent need for further investments (as explained in the previous chapters) private aspirants should accept the challenges and face the risks.

[38] Report on Wilton Park Conference 909, April 9-11, 2008, page 11-14
[39] Reich: Private- Public Partnerships for Public Health, Harvard University Press, 2002, page 10
[40] Report on Wilton Park Conference 909, April 9-11, 2008, page 2-3

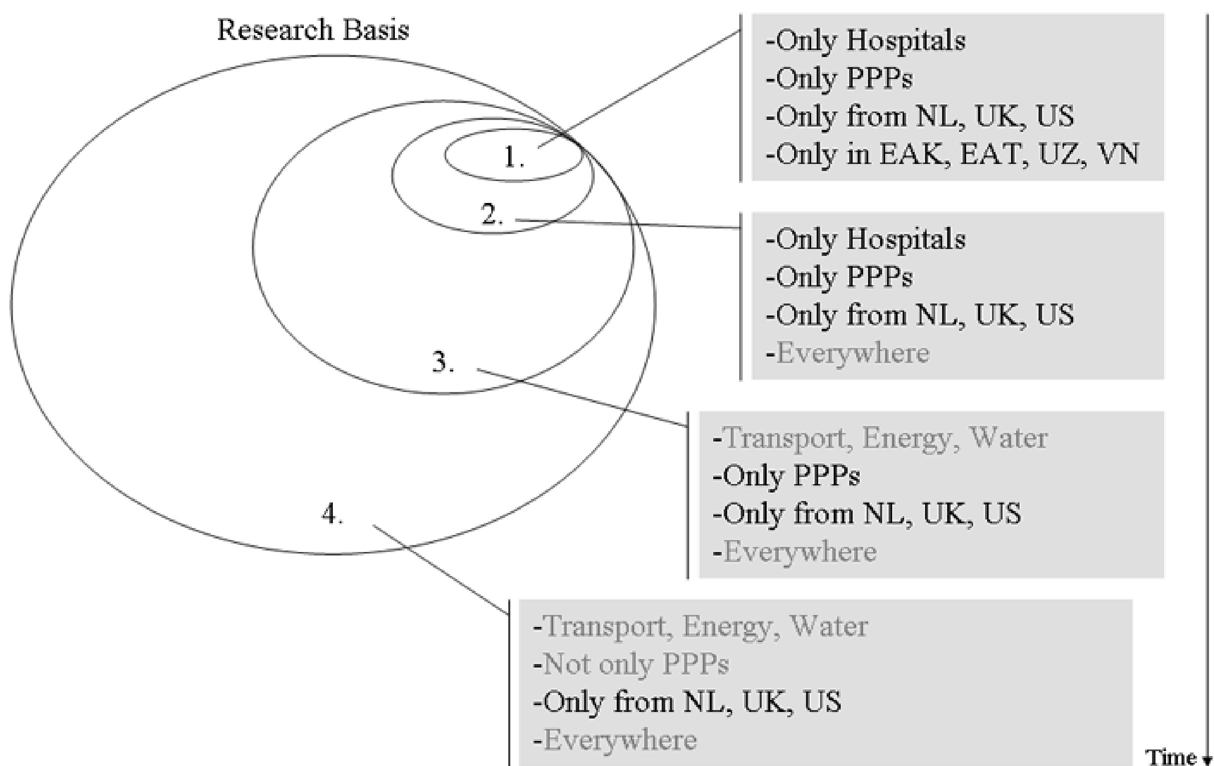
# 3 Methodical Approach

The basic methodology applied is to find comparable hospital PPPs in order to explain the approaches of the selected countries and collect lessons that can be learned from their experience.

## 3.1 Research Development and Constraint Changes

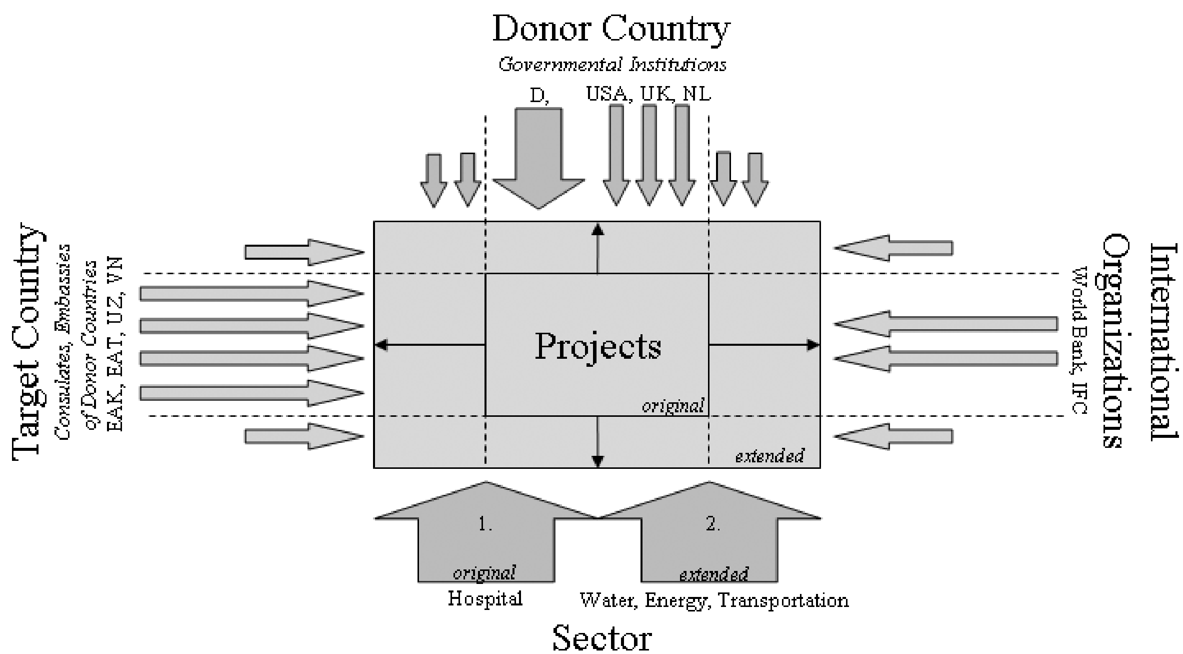
Due to requirement changes the scope of the research broadened during evaluation. This is because suitable projects were hard to find and only little information was available on those projects found. The following figure shows how the number of constraints decreased while the research basis increased.

**Figure 7: Search Scope**




The structured approach covers all governmental and international organizations for coordination of development aid. The following figure shows the structure including some constraint changes and all channels that were researched.

**Figure 8: Methodical Search Structure**




The search mainly consisted of scans of available databases on development projects. Emails were written to all defined donor country embassies and consulates in the original four target countries with little feedback. Furthermore, investigations into project examples found during the literature review were conducted. An extensive research among companies active in this sector was not carried out since the field of possible and active companies is too broad. Besides, this paper focuses primarily on finding a model for governments to implement, not for companies.

Due to the minimal findings of the project search and the understanding that a standard approach is non-existent, a further search for the countries' political approaches to promoting foreign trade together with development aid activities was taken into consideration. The findings were presented as part of the deliverables to the steering committee of the BDI research. Furthermore, another two countries, namely France and Japan, were screened for their political approaches due to explanatory reasons (see chapter 4.1 and 4.2). The following chapters show the findings of the research and explain how the impression could arise that standard approaches exist.

## 3.2 Project Research

The project research considers programmes and single projects from various sectors and countries (both developed and developing countries).

**Table 2: Programmes and Projects Analysed**

| | Health Sector | Other Sectors |
|---|---|---|
| Programmes | 5 *(A)* | 0 *(C)* |
| Projects | 22 *(B)* | 13 *(D)* |

In Part I, the programmes and projects are analysed according to which of the following components they include:

- D Design
- B/R Build/Rehabilitate
- F Finance
- M Manage/Operate
- O Own
- T Transfer
- O Others

Part II analyses following aspects according to whether they are positively affected, negatively affected, both positively and negatively affected or are either unknown or not relevant to this research.

- Quality of clinical services
- Quality of non-clinical services
- Investment cost
- Operational cost
- Treatment efficiency
- Availability
- Compliance with budget
- Compliance with schedule

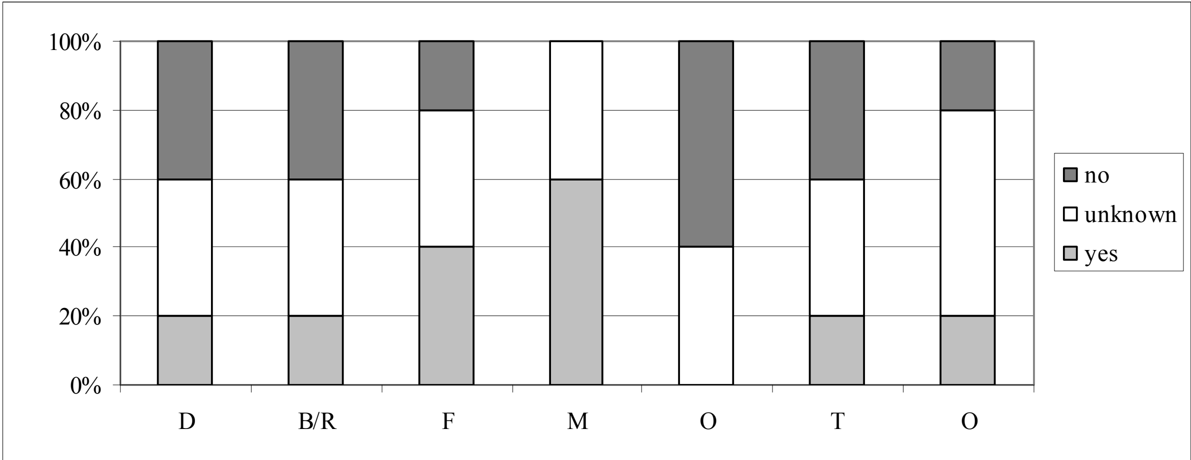
Due to its nature, the quality of clinical services is not considered in the non-health sector. In the health sector, however, non-clinical services are also considered since complementary services are usually offered by renting out free building capacity or by providing educational services.

Part III evaluates listings of success premises, risks involved and financial options that can be seen as lessons learned from the project research.

### 3.2.1 Part I – Programmes *A/C*

Since programmes from other sectors than the health sector are not considered, the five health programmes can be seen as representatives. Even though full information on the programmes was not available and the programmes highly differ in size and focus, tendencies can still be pointed out.

**Figure 9: Components of Programmes**




- All programmes include the Manage/Operate component which was to be expected since the basic assumption behind PPPs, namely better private management, recommends this.
- No programme includes a complete transfer of ownership to the private sector. One programme already predefines a transfer back to the government.

- Two-thirds exclude private partners from Design. This can indicate a distrust of the government in the abilities of privates. Yet, privates might be even more effective with growing involvement.
- Others could e.g. be franchise or leasing systems but neither is this very common nor is this kind of information particularly beneficial to this research.

Furthermore, additionally gathered information on the programmes shows that all programmes have the objective to either reduce cost or expand availability.

### 3.2.2 Part I – Projects *B/D*

Since the projects at hand are from both the health sector and from other sectors, their components are shown in the three figures on the following page (health sector, non-health sector, all projects).

The following can be derived from the projects (Figure 10-12):

- The component Design is not included in around 50 percent of the projects. This observation tends to be stronger in the health sector than elsewhere.
- Build/Rehabilitation as well as Finance are elements typically included in almost all sectors except for health where they are only included in about 50 percent of the projects.
- Apart from one project, all the others include the Manage/Operate component (compare 3.2.1).
- In only 20 percent of all projects (regardless of the sector) ownership of the asset is completely transferred to the private sector. The transfer back to the government on the other hand is common in non-health sectors (~50%) but uncommon in the health sector (~15%).

In most cases these components describe the situation adequately but in a few cases other systems have to be put in place. This might be due to hardly standardizable circumstances which require individual solutions.

**Figure 10: Components of Projects in the Health Sector**

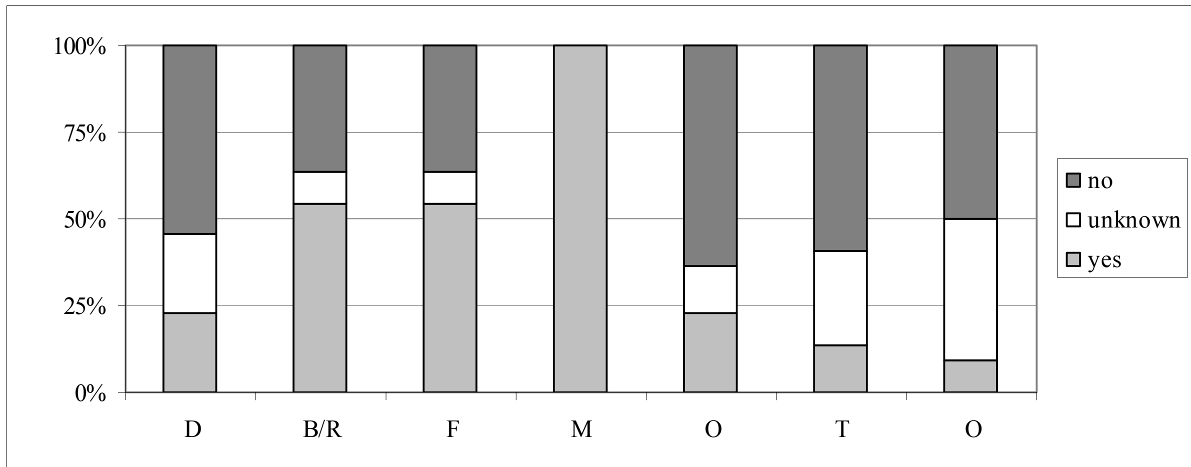



**Figure 11: Components of Projects in Non-Health Sectors**

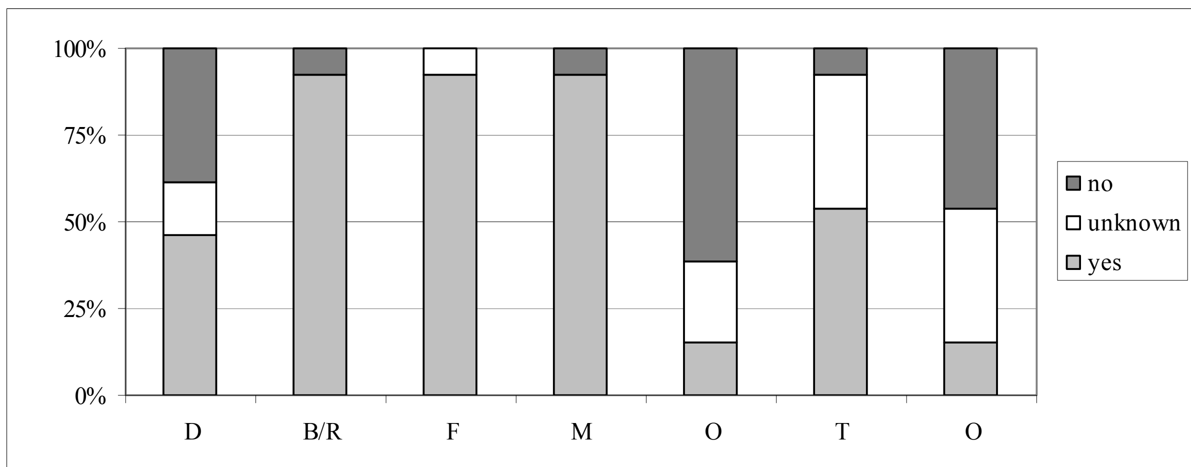
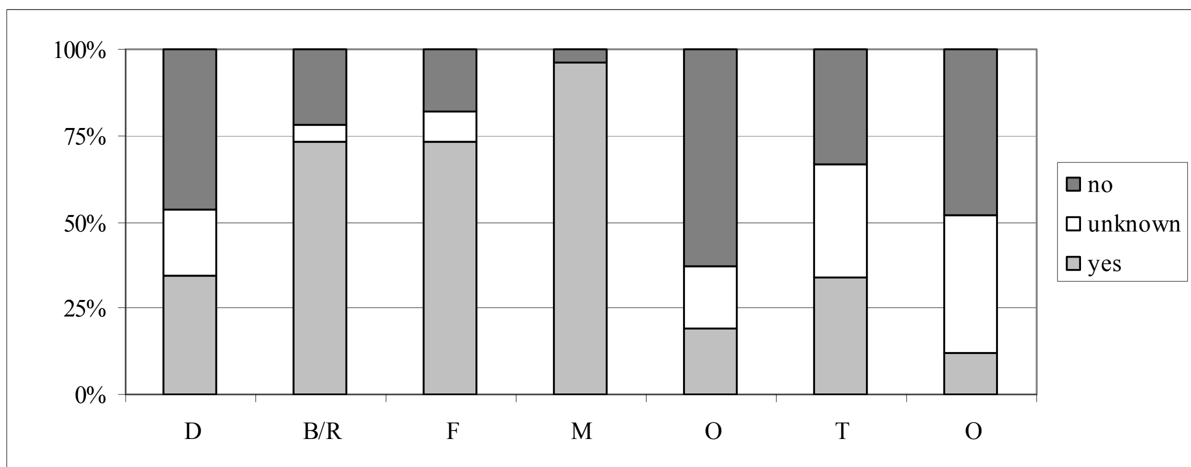


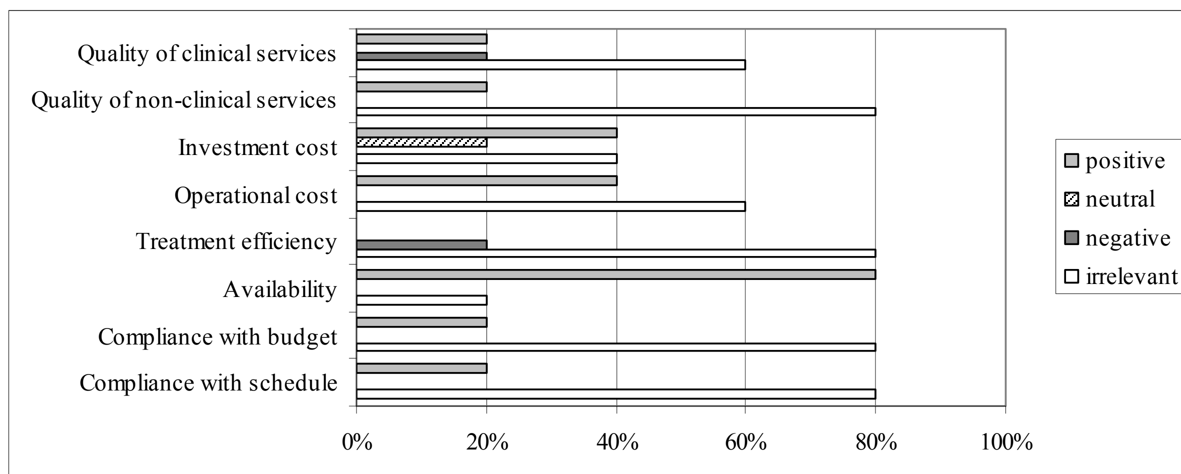

**Figure 12: Components of All Projects**



### 3.2.3 Part II

Even though the collected data distinguishes between ‘unknown’ and ‘irrelevant’, these options are summarized under the heading ‘irrelevant’ since no additional information gathering is possible.

**Figure 13: Effects of Programmes**




When considering the programmes (Figure 13) the only obvious result is that at least 80 percent of the programmes have a positive effect on the availability. There are only two fields in which negative effects are mentioned (20% each). Thus, one can derive that the quality of clinical services and the treatment efficiency are at risk. The other aspects, however, do not clearly render informational value.

The following can be derived from the projects (Figure 14-16):

- The projects at hand neither had a positive nor a negative effect on compliance with budget and schedule.
- The availability of services did not increase significantly in the non-health sector but highly increased in the health sector. 55 percent of the projects had a positive impact on the availability of services.
- Treatment efficiency was also positively affected. In both sectors 54 percent were positive and only 10 percent negative.

**Figure 14: Effects of Projects in the Health Sector**

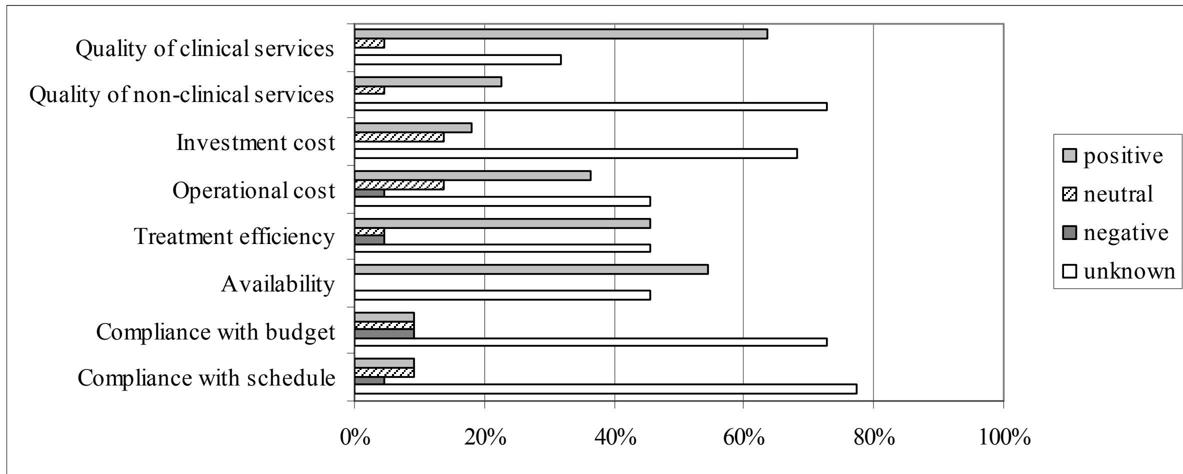



**Figure 15: Effects of Projects in Non-Health Sectors**

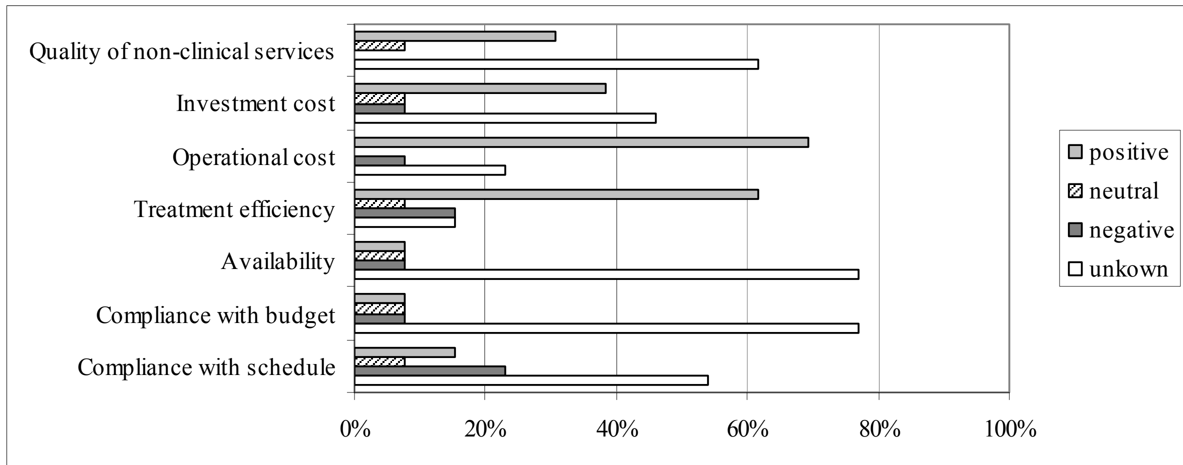
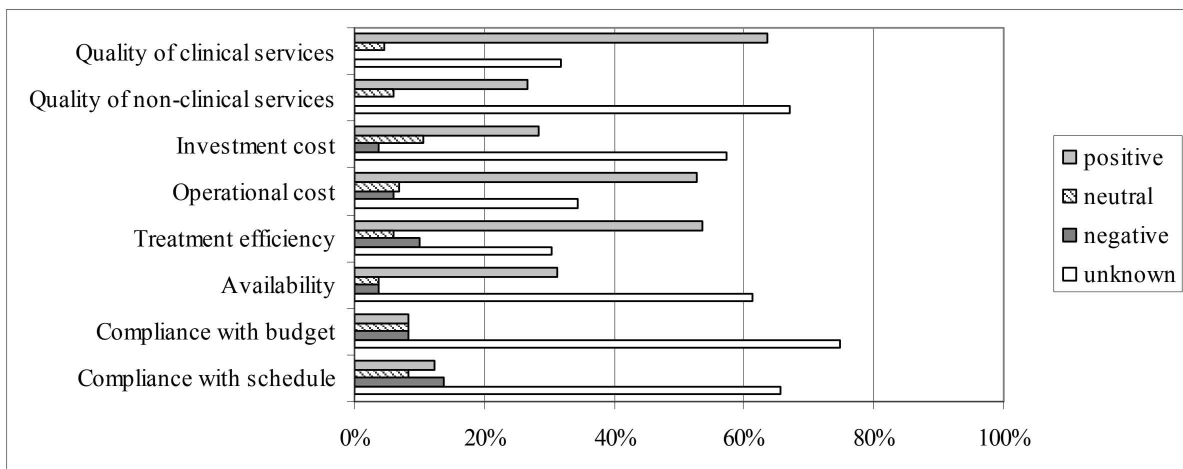



**Figure 16: Effects of All Projects**



- Costs in general also clearly improved with 36 percent in health, 69 percent in non-health opposing less than 10 percent negative experiences in operational cost. For investment costs this is less distinct with 18 / 38 percent positive statements.
- Service quality was also positively affected throughout the sectors. Improvements in non-clinical services were found in 27 percent of the projects and even 64 percent in clinical services (health sector only). This opposes the theoretical risk as derived by McKee, Edwards and Atun (compare chapter 3.3.5).

To conclude, a lot more positive than negative effects were achieved. This could also be due to the variety of sources used and their inconsistent information value. Published data is often formulated positively for marketing reasons. But disregarding this, the positive effects expected of private service provision seem to be feasible.

### 3.2.4 Part III *(Lessons Learned)*

Part III of the project evaluation contains a collection of statements taken from the respective literature and project descriptions. These are categorised into success premises, risk factors and forms of financing which can be regarded as lessons learned from the hospital projects.

To summarize the findings for success premises (English listing in Appendix 1: Success Factors for Hospital PPPs) the PEST framework (Political, Economical, Social, Technological) is applied to structure requirements.
Many requirements and burdens are directed towards the political side. Firstly, complete political and legal frameworks for PPPs have to be in place or developed so that jurisdictional stability is given. Subsequently, governments have to be able to handle PPPs, keep track of them and give autonomy to private management. Separately involved governmental institutions need to have a common consensus on interests and give clear statements on motivation and objectives they want to achieve.
Obstacles can also be found on the economic side where private partners have to find a consensus with public partners on the objectives and feasible targets. The partners need to work together very closely and be aware of their long-term bonding and the required flexibility. The arrangements have to include clear, predefined, gaugeable specifications for targets, success and processes which will result in obligations and liabilities for all parties. Liability should be created by giving incentives rather than penalties and conflict-solving mechanisms should also be implemented from the beginning. Furthermore, extensive

feasibility studies should be processed before contract creation, external experts should be consulted (e.g. NGO or World Bank) and local partners included.
On the social side the main point is an active stakeholder communication, including local communities, to make the project accepted. The parties need to be sure about the commitment and have to be able to trust each other.
During this evaluation stage technical obstacles can only be defined roughly but the inclusion of locals as consultants, business partners or suppliers is important. Furthermore, hospital management structures have to be established.

Possible risks cannot be listed completely but those pointed out within the research (Appendix 2: Risk Factors for Hospital PPPs) can be summarized under the following points: construction risk, complexity, insufficient cost calculation, not clearly defined procedures, inappropriate governmental and legal frameworks, underestimation of effort (time and financial) and service quality at risk (compare chapter 2.2.5 SWOT).
Financing is a very complex topic which should be evaluated as soon as some target countries are in closer consideration. Because of too many determinants a theoretical approach is inappropriate. The options named (Appendix 3: Options for Financing Hospital PPPs) are not exclusive and are not considered in depth but they can give a general overview.
Several cash flow origins are possible, namely patients, governments, NGOs, international organisations or insurances. Also, different bases of charging are thinkable: per treatment, per patient or a complete coverage. Worldwide, different models are in place which are deeply integrated in national health strategies and therefore have to be regarded separately.

When looking for additional lessons learned from non-hospital projects the following recommendations are interesting:

- A Poverty and Social Impact Analysis is recommended as success premises.
- Finances (especially income) should be designed in a way which motivates the private partners to achieve the determined goals.
- A high level of standardisation and transparency will simplify contracting.
- Risks can emerge through ownership transfers to private partners by overvaluing included assets.

- Governments tend to use sunk production cost to renegotiate better conditions. Currency exchange risks are a major issue.
- Electricity and water are not always available continuously.
- Financial organization in the health system is too specific to generally adopt structures.

## 3.3 Donor Countries

In the following chapters the selected countries' efforts to support private participation in development aid are described.

### 3.3.1 France

France offers a complete set of instruments supporting private engagement in development aid throughout all project stages. Three French institutions offer related services: Agence Française de Développement (AFD), Direction générale du Trésor et de la politique économique (DGTPE) and the Direction générale de la coopération internationale et du développement (DGCID). The programmes include following offers:[41]

- Feasibility studies: FASEP-Etudes (DGTPE)
- Special funds for emerging markets: Réserve Pay Emergents (DGTPE)
- Collateral security through the COFACE Group
- Guaranties to minimize currency exchange risks (AFD)
- Interest subsidies to improve commercial credit terms (AFD)
- Guaranties up to 80 percent on bidding costs on international tenders

Even though France offers a lot of support for private engagement, non-governmental organizations (NGOs) are becoming 'privileged assistance operators'. Accordingly, the government has agreed to double the share of French ODA moving through NGOs within five years (from 2004 to 2009).[42] Over half of the ODA (59%) was directly given as bilateral aid

[41] COMO Consulting: Internationales Benchmarking, Im Spannungsfeld von Außenwirtschaftsförderung und Entwicklungszusammenarbeit, 08/06/2006, slide 19, 21-22, 28-30

[42] French government online: http://www.diplomatie.gouv.fr/en/france-priorities_1/development_2108/, accessed 13/03/2009

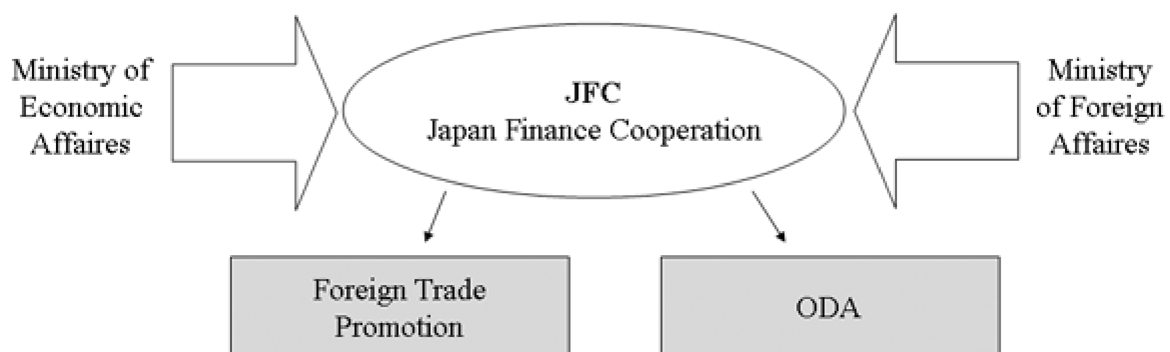
and 41 percent went through multilateral channels (e.g. international organisations).[43] It is not clear though what share of the ODA flows to the NGOs since national NGOs can be accounted to bilateral aid whereas international NGOs should be accounted as multilateral aid. Nevertheless, increased funds to NGOs consequently reduce funds for other private participants.

Since France only joined the selected countries at a later stage, a project research was not conducted separately.

### 3.3.2 Japan

On the political level, Japan takes an extreme position among the selected countries. There, development aid is seen as an instrument of foreign trade promotion and it is mainly the Asian trade partners that are supported through development aid programmes.
Both governmental functions were formerly provided by the Japan Bank of International Cooperation (JBIC) which merged with other institutions to the Japan Finance Corporation (JFC) at the beginning of 2008. Through the economic focus of the JBIC the influence of the Ministry of Economic Affairs seems stronger even though a 50/50 partnership with the Ministry of Foreign Affairs is formally given. The JBIC (now JFC) provides ODA through the Overseas Economic Cooperation Operations (OECO) institution and foreign trade promotion through International Financial Operations (IFO). [44]

**Figure 17: Japanese System**




[43] French government online: http://www.diplomatie.gouv.fr/en/france-priorities_1/development_2108/french-policy_2589/governmental-strategies_2670/sectorial-strategies-cicid_2590/health-may-2005_3018.html, accessed 13/03/2009

[44] COMO Consulting: Internationales Benchmarking, Im Spannungsfeld von Außenwirtschaftsförderung und Entwicklungszusammenarbeit, 08/06/2006, slide 7

Public Private Partnerships are also encouraged. Programmes and knowledge are bundled in organisations like the Private Sector Investment Finance and the Special Terms for Economic Partnerships (STEP), organisations mainly active in the infrastructure sector.

Since Japan only joined the selected countries at a later stage, a project research was not conducted separately.

### 3.3.3 United States of America

The United States Trade and Development Agency (USTDA) officially has the task of promoting foreign trade. The U.S. Agency for International Development (USAID), as institution for development aid, also incorporates promotion of PPPs through the Global Development Agency (GDA). The GDA offers service contracts, grants and cooperation alliances as forms of public-private cooperation.

In over 30 years of practice the resource origin of development aid from the US shifted from solely governmental (ODA) to 85 percent private investment (e.g. fixed capital investment, remittances, others).[45] Private foundations (e.g. Bill and Melinda Gates Foundation) have a major stake in these private investments and are sometimes regarded as public partners since they usually represent a public interest. After seven years of GDA operation (since 2001), over 680 alliances with over 1,700 partners have been formed, with a budget of over $9 billion.[46]

> "…we have found that grant mechanisms rather than budget support work best. USAID and its private partners fund the implementing organisation, usually NGOs."[47]

The USAID GDA is very active in the creation and restoration of hospitals in developing countries. The Koidu project is a typical example for this. In 2003, the USAID hired Première Urgence (a French NGO) to rebuild the war-damaged Koidu hospital in Sierra Leone.[48] Of course, medical equipment and some construction services were provided through other

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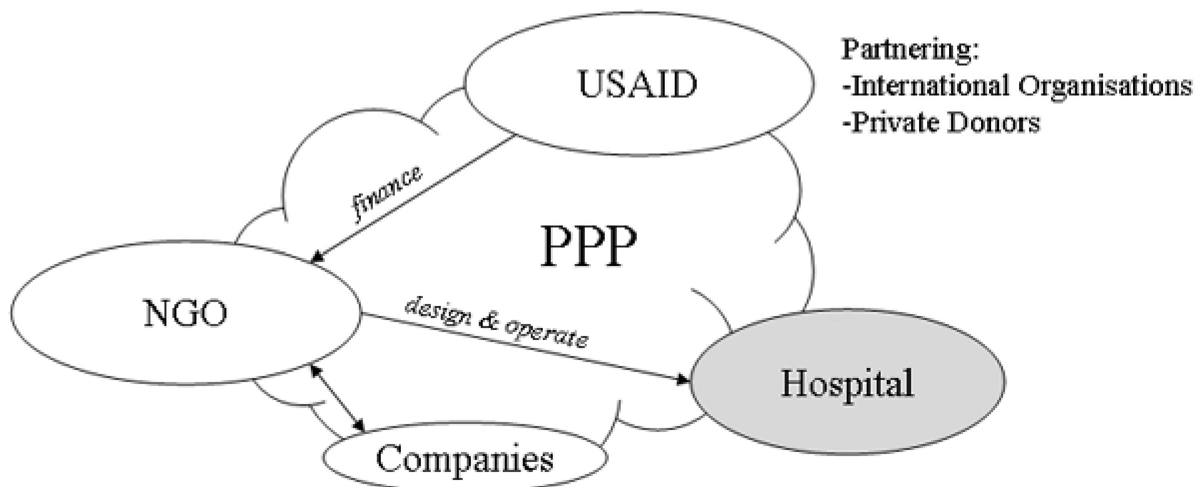
[45] Runde (USAID GDA Director): How to make development partnerships work, OECD Observer, no 255, 05/2006, page 30
[46] USAID GDA online: business model, http://www.usaid.gov/our_work/global_partnerships/gda/model.html, accessed 11/02/2009
[47] Runde (USAID GDA Director): How to make development partnerships work, OECD Observer, no 255, 05/2006, page 30
[48] USAID online: http://africastories.usaid.gov, accessed 25/12/2008

private partners. Nevertheless, the Koidu project is not a PPP according to the definition of PPPs this research is based on because even though private and public partners are included, a share of risks and benefits is not given.

**Figure 18: Typical USAID Hospital Project**



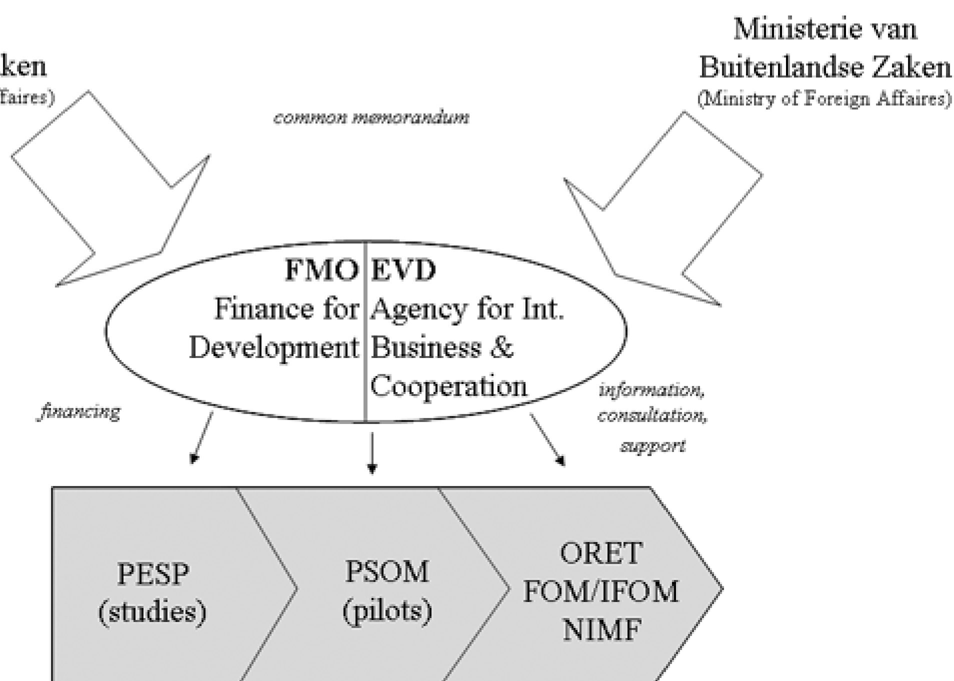

The US is not only nominally the biggest donor country in the world but also supports the biggest projects. Most other countries limit their financial participation for each single project to a certain amount, but an average US development project has a volume of over $17 million. It is also interesting that the GDA works with an ‘anything goes’ mentality. This means that as long as a project proposal fits the Annual Programme Statements (APS) and the private partner provides at least 25 percent of the funding, basically any proposal can be supported.

### 3.3.4 Netherlands

The Netherlands government promotes foreign trade through the Ministry of Finance and development aid through the Ministry of Foreign Affairs, specifically the Directorate General for International Cooperation (DGIS). Both institutions had difficulties working together until the end of the 1990s. They then overcame this crisis through a common memorandum and are now working together closely. Each institution created a new institution focussed on cooperation with the private sector, namely the Finance for Development (FMO) and Agency for International Business and Cooperation (EVD).

The FMO is a financial institution with 49 percent private ownership (mainly banks) and is thereby a PPP in itself. EVD acts as a provider of information, consultation and support.[49]

**Figure 19: Netherlands System**




The Netherlands offer a complete set of instruments to support companies in all project phases, from studies to pilots to long-term securities. The following two programmes are the most interesting for this research since they support the stages preceding full project implementation.

- PESP supports studies (e.g. feasibility studies) with an annual budget of €7 million. For each single project public participation can reach a share of two thirds up to a limit of €200,000.
- PSOM is for supporting pilot projects through an annual budget of €50 million. Again public participation is limited, to 60 percent share and a project limit of €0.25 million to €1.5 million.

It has to be stated that besides an alignment with government objectives a Netherlands company origin is a prerequisite.[50] This excludes companies with other origins (e.g. German) from participating.

[49] BMWi, COMO: Öffentlich-Private Unternehmenspartnerschaften in Entwicklungsländern, Hamburg 2007, page 61

Knowledge centres for PPPs are provided through specialized institutions like the Vlaams Kenniscentrum PPS but also through the EVD.

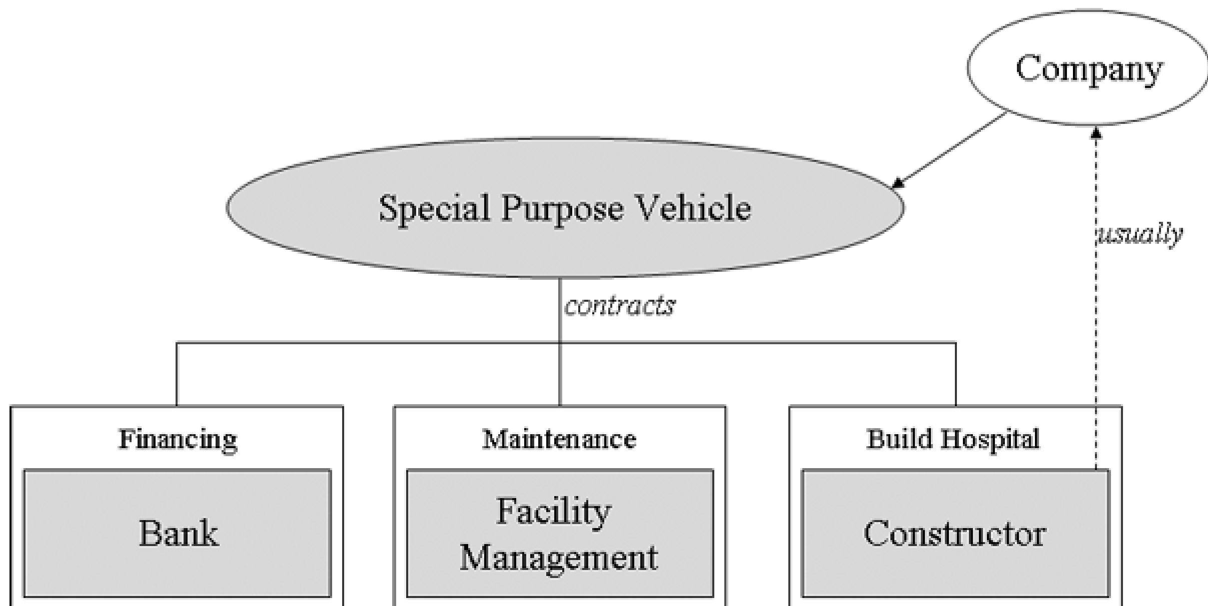
### 3.3.5 United Kingdom

UK Trade & Investment (UKIT) is the central governmental organisation providing promotion services for foreign trade. The Department for International Development (DFID) manages development aid commitments. In the UK these two institutions are separated by law: “The 2002 Act is drafted in such way that a policy such as Tied Aid (and the Aid and Trade provision), in which assistance is given for the purpose of promoting UK trade or for other commercial or political reasons, would now be challengeable in the courts”[51]. Because of this separation the UK – just like Japan –takes an extreme position among the selected countries that work more or less jointly on supporting private participation in development aid.

Still, with the Private Finance Initiative (PFI) the UK offers a PPP programme which is used as reference model for many other countries. This programme was formally provided by the Treasury Taskforce and is now managed through Partnerships UK (PUK), which is a PPP itself. Over 620 PFI projects worth over £50 billion have been supported so far.[52] The PFI programme basically offers three types of PPPs: free-standing projects, joint ventures and services sold to the public sector. The IMF calls it the ‘perhaps best-developed programme’.[53] Thus, Partnerships UK acts as a strategic consultant to public institutions by sharing success risk, contracting specific consultants, managing issues, negotiating services, supporting the development of legal frameworks and co-financing projects.[54]

[50] COMO Consulting: Internationales Benchmarking, Im Spannungsfeld von Außenwirtschaftsförderung und Entwicklungszusammenarbeit, 08/06/2006, slide 28
[51] DFID 2002, quoted in COMO Consulting: Internationales Benchmarking, Im Spannungsfeld von Außenwirtschaftsförderung und Entwicklungszusammenarbeit, 08/06/2006, slide7
[52] Partnerships UK: Background, www.partnershipsuk.org.uk, accessed 11/02/2009
[53] IMF: Public-Private Partnerships, 2004, page 5
[54] Partnerships UK: What PUK do?, www.partnershipsuk.org.uk, accessed 16/02/2009

**Figure 20: Typical PFI Model**




According to McKee, Edwards and Atun PFI projects typically are designed the following way: A construction company usually creates a 'special purpose vehicle' to bid for an announced contract that could contain the building of a hospital and the provision of non-clinical services to the corresponding UK authority. If the company bids successfully, contracts will be signed with financing banks, the construction company and a facility management company. The contract lifetime is usually 30 years. During this time, the health care provider pays a contracted revenue share for the facility usage.[55]

Since most PFI project contracts are still running, experience does not yet include the entire partnership. However, some key issues can already be identified. According to McKee, Edwards and Atun the main issues can be found in the fields of cost, quality, flexibility and complexity. Especially critical are the financial risks which consist of the following elements: High bidding costs exist on both sides and can be contained through an increased level of standardisation in contracting. Corporate bonds for PFI projects are typically awarded BBB+ ratings opposing government bonds with AAA which leads to high financing cost. Maintenance costs may also be higher but still lead to a much better provision. To sum up, the costs of PPPs within the PFI system are frequently underestimated.

The authors further explain that a trade-off usually has to be made between cost, time and quality. When comparing projects from 2001, one finds that in traditional procurement quality

[55] McKee, Edwards, Atun: Public-private partnerships for hospitals, Bulletin of the World Health Organization 2006; page 891-895

suffers the least whereas budget and time where exceeded in two thirds of the cases. In PFI projects from the same year, on the other hand two thirds of the projects kept to budget and time schedule – though possibly at the expense of service quality.
The rapidly changing society and health technology lead to a high demand of flexibility which opposes the objective to minimize risks through rigid contracts. Furthermore, hospital projects, especially those including teaching facilities, can reach a very high level of complexity through the variety of customers and stakeholders.

Besides the PFI programme the UK has also supported development cooperation via different Challenge Funds since the end of the 1990s. These are financial pots provided for a predefined time and dedicated to specific fields of interest. Recently, the Business Linkage Challenge Fund which aimed at fighting poverty was closed.[56] Since 2008, the Africa Enterprise Challenge Fund (multi-donor) has been offering $100 million over a period of 7 years for testing innovative business models in order to increase market participation of the poor (consumers, workers and producers). Furthermore, the Emerging Africa Infrastructure Fund provides long-term financing for private construction and the development of infrastructure in Sub-Saharan Africa. Finally, the Investment Climate Facility for Africa helps to lower the cost of doing business in Africa and promotes a better investment climate across the continent.

Since literature often declares PFI as state of the art, the expectations of this research towards the UK approach were high. Nevertheless, PFI is solely focussed on PPPs within the UK and therefore has to be regarded critically. The PFI experience is broad, even in the field of hospital PPPs. But the PFI approach cannot be adopted one-to-one within development aid due to the different implementation environments. Payment regulations, for instance, vary from country to country. The highly standardised UK National Health Service (NHS) is probably one of the easiest systems to implement PPPs since it has only one central payment institution. In most developing countries payment risk is much higher since many people do not have health insurance and it is therefore not clear where the cash flow comes from.
Nevertheless, lessons can be learned from the PFI. The system still has to be regarded critically though since not all experiences have been truly beneficial to participants and

[56] DFID online: http://www.dfid.gov.uk, accessed 18/03/2009

patients. Furthermore, it has to be pointed out that no specific funding schemes are offered in early phases (studies or pilots) and that only full projects are supported.

### 3.3.6 Germany

For this project three ministries and three further institutions are of interest. Some of these institutions are at the same time sponsors of this research project or are at least involved in it.

- The BMWi's (Bundesministerium für Wirtschaft und Technologie – The Federal Ministry of Economics and Technology) main priority is to establish widespread economic prosperity and therefore it supports German companies.[57]
- BMG (Bundesministerium für Gesundheit – The Federal Ministry of Health)
- The BMZ (Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung - Federal Ministry for Economic Cooperation and Development) works on establishing global structural and peace policies to resolve crises and conflicts. It also supports a fair sharing of scarce resources, preservation of the environment and global poverty reduction.[58].
- The GTZ (Gesellschaft für technische Zusammenarbeit GmbH) is an international cooperation enterprise that enables sustainable development through reforms and change processes. The GTZ offers environmental analyses, development plans, maintenance, quality management, personnel management and information systems for development projects.[59]
- The KfW (Kreditanstalt für Wiederaufbau) is a state-owned bank supporting sustainable improvements in economic, social and ecological conditions.[60]
- The DEG (Deutsche Investitions- und Entwicklungsgesellschaft), as part of the KfW, finances private investments in developing countries for sustainable economic growth and improved living conditions.[61]

When evaluating the efforts of the KfW parallels with the global development aid situation can be drawn. This is because the health sector is the second biggest engagement field after

[57] BMWi online: http://www.bmwi.de/English/Navigation/ministry.html, accessed 19/03/2009
[58] BMZ online: http://www.bmz.de/en/ministry/index.html, accessed 19/03/2009
[59] GTZ online: http://www.gtz.de/en/unternehmen/689.htm, accessed 19/03/2009
[60] KfW online: http://www.kfw.de/EN_Home/KfW_Bankengruppe/index.jsp , accessed 19/03/2009
[61] DEG online: http://www.deginvest.de/EN_Home/About_DEG/index.jsp, accessed 19/03/2009

finances but the experience in hospital development is very small.[62] The KfW's main concerns are for instance payment and insurance systems or pharmaceuticals.

As the amount of institutions involved in this project shows, responsibility is spread widely and the project concept intersects with many fields. This creates issues on the side of financing responsibilities but also a conflict of interests. Exaggerating, one could say that the BMG and BMZ on the one hand are not particularly interested in the business needs of private companies. In order to reach the highest development aid effect the ideal hospital for these institutions would be in the poorest possible country in a rural area. The BMWi on the other hand represents business interests and targets emerging economies (e.g. Mexico or BRIC: Brazil, Russia, India, China) and metropolitan areas. These are the more solvent regions where needs exceed basic treatment and therefore more profit-gaining services can be offered.

Another concern is the German system of public tenders since companies get involved in the development process of a project at a relatively late stage. Here, public institutions usually develop a project idea first. Then, a public bidding process is opened - mostly to companies EU-wide (strictly following EU regulations[63]). This increases competition. Other countries see this more lax: Private companies are already included in the development process and can therefore steer the direction according to their business objectives. Furthermore, many countries only open bidding to their own countries companies. This gives German companies a disadvantage because they are being excluded from foreign projects and face higher competition on home markets at the same time.

## 3.4 Target Countries

Finding a target country is a challenge within a project of stakeholders with different interests. A consensus mainly has to be found between development aid interests on the governmental side and profit-seeking ambitions of the private sector. This dilemma is also explained in the previous chapter but is valid in other countries too.

Most donors define focus countries in which they want to foster development aid. Such, Germany is currently focusing on Kenya, Tanzania, Uzbekistan and Vietnam while the USA,

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[62] KfW: Einführungsseminar PPP in der FZ, Frankfurt, 2008

[63] Also see European Union Online: http://ec.europa.eu/internal_market/publicprocurement/ppp_de.htm, accessed 07/04/2009

for instance, declare their ambitions through Annual Programme Statements. The donor countries institutions responsible for development aid favour rural areas dramatically lacking appropriate health infrastructure since this potentially gains the highest ODA effectiveness.
On the other hand private investors are looking for profitability and economic stability since the time scope of such a project is very long (about 20 years). Nobody can predict how each of the countries' economies will be by then. This is especially true for politically unstable places where the investment risk is very high since the local government might, for example, nationalize assets.

Concerning the regions within the target countries, the interests of private and public partners also oppose one another. Whereas private partners prefer metropolitan areas where many customers can be served, public development aid institutions prefer rural areas where health services are lacking.

As mentioned before, the basic economic concern of where the cash flow comes from is also a major issue in developing hospital PPPs. Usually, health insurances are scarce in the poorest countries of the world and people cannot pay for health expenses themselves. According to a study of the IFC, only 2 percent of the population in 12 countries (primarily West African) are enrolled in a community insurance (public or private).[64]

> "Today, Sub-Saharan Africa depends on out-of pocket payments as a means of financing about half of total health expenditure, and in some countries—such as Burundi, Democratic Republic of Congo, and Guinea—they account for more than 75 percent."[65]

Options to deal with this are for instance micro credits or cross-subsidising. The latter is for example applied in Lesotho where basic services are financed partly through billing a surplus on services of a luxury department within the same hospital.

A consensus between these interests has to be found and a group of countries selected so that more detailed planning is possible.

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[64] IFC (World Bank Group): The Business of Health in Afrika, Partnering with the Private Sector to Improve People's Lives, 2007, (numbers from 2003) reffering to Ndiaye, P., Soors, W., and Criel, B. "A view from beneath: community health insurance in Africa." Tropical Medicine and International Health, vol. 12, no. 2, 2007, pages 157–61

[65] WHO, World Health Report 2006: Working together for health, Geneva 2006

## 3.5 International Organisations

Major players, especially in the distribution of development aid, are international intergovernmental institutions, particularly the World Health Organisation (WHO) and the IMF as well as the World Bank. They control major shares of the ODA budgets of most countries. In the field of development aid distribution the global community works closely together, particularly since the agreement on the MDGs.

NGOs are also very active in these fields. They mostly act as implementing partners or consultants and they support the financing of projects. Some hospital projects which are currently being supported or have been supported by the international intergovernmental organisations are as follows.

**Table 3: Projects from International Organisations**

| | PPP | Hospital | Title | Country | Status |
|---|---|---|---|---|---|
| 1 | yes | yes | Lesotho New Hospital PPP | Lesotho | active‘07 |
| 2 | ~ | ~ | Regional Blood Transfusion Centres | Vietnam | active’02 |
| 3 | ~ | ~ | National Health Development Programme | Guinea-Bissau | closed’97 |
| 4 | ~ | ~ | Provincial Health Sector Development | Argentina | closed’95 |
| 5 | yes | yes | Saudi German Hospital Group: Hospital | Sudan | active |

(~ stands for ‘not clear’, i.e. either not fulfilling the applied definition of PPPs or not being a comparable hospital project)

Projects *#1-4* are led by the World Bank, project *#5* is led by the IFC:

1. Lesotho, as mentioned before, is a very promising project where a hospital is being restructured and extended to increase service provision. Some parts are already finished, some are still in progress. It is of special public interest since a new financing system is being applied. In this system basic services are offered to the poor at an affordable prize. In order to still be profitable high class services are offered to a relatively wealthy part of the community. Thereby, a price surplus is added to subsidise basic care.
2. Since the Vietnam project only offers one single service line (blood transfusion) and also does not fulfil requirements of PPPs, it is not included in the project research.
3. For Guinea-Bissau a whole national development programme was established. This project might however include hospital investments which are not described separately. Furthermore, even though the project is in cooperation with a consultancy it cannot be identified as a form of PPP because it is merely a common service contract.
4. The Argentina project represents a similar case as *#3* (Guinea-Bissau) and is therefore not in accordance with the applied definition of PPPs either.
5. The Saudi German Hospital Group (SGH Group) is a private company establishing hospitals mainly in the North Africa and Middle East regions. Often, the SGHs projects are financed by the IMF. Even though some of the countries the SGH is active in are considered developing countries, the SGHs hospitals offer luxury or at least high class services so that the development aid focus is not appropriately given.

International organisations play a major role in the provision of health aid. But again, the share of hospital projects is relatively small compared to other fields like the provision of pharmaceuticals, for example. Even though some interesting hospital projects have been and still are being processed, these are not the focus of this research. This is because the service centres are too specific (e.g. maternity or blood-transfusion *#2*), too luxurious (*#5*) to be an appropriate development aid or too small to make PPPs - at least partly - self-sufficient. Furthermore, many projects operated by NGOs do not fulfil the applied definition of PPPs (2.2.4 Definition), especially when it comes to the risk sharing aspect, and are thus not considered in the project research.

Again, a standardized model cannot be derived. Nevertheless, a lot of attention is focussed on the ongoing Lesotho project since it seems to be functioning well, fulfils the applied definition of PPPs and could indeed become a state-of-the-art model through the cross-subsidisation approach. Still, adding NGOs as partners to PPPs increases complexity. Firstly, it is unclear whether NGOs should be considered public or private partners since they usually represent a public interest even though they are private organisations lacking institutional power. Secondly, NGOs might also represent another opposing opinion and thus increase the conflict of interests within PPPs.

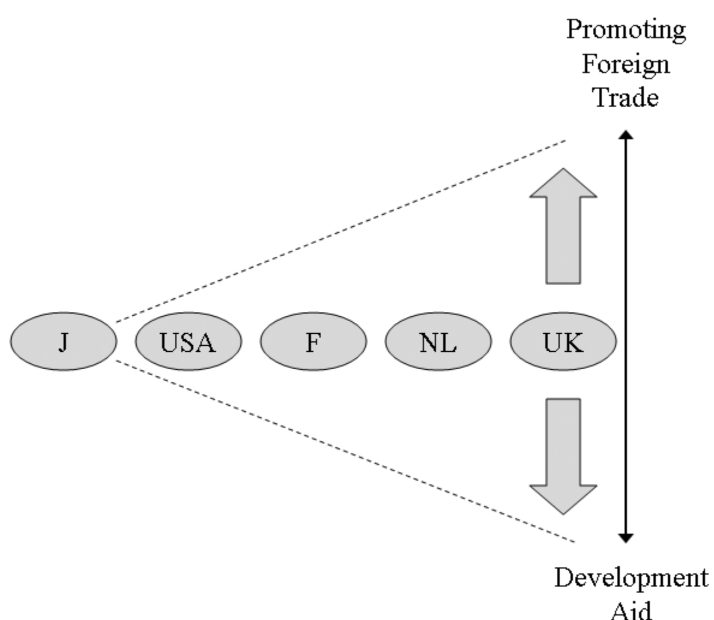
# 4 Specific Considerations

In this chapter the selected countries' political situations as well as the project phases they support are compared with each other. Furthermore, the higher need for development aid in times of a global economic crisis and the necessity to increase aid to Sub-Saharan Africa is explained. Finally, an example model for PPPs is described.

## 4.1 Foreign Trade Promotion and Development Aid

When looking at the systems of the donor countries, the institutions for promoting foreign trade and aiding international development are of special interest since they have to work together closely in order to form PPPs for building hospitals in developing countries. In order to get an oversight of where help may come from but also where political issues may block this type of potentially beneficial projects, it is important to consider these two different political instruments which are both thematically involved with the topic.
This aspect is elaborated on within the respective country profiles but a general oversight helps to understand the differences. These can reach from development aid as an instrument of foreign trade promotion to a strict jurisdictional separation. This shows the ambitions of the respective countries and their governance principles.

**Figure 21: Distance of Foreign Trade Promotion to Development Aid**[66]



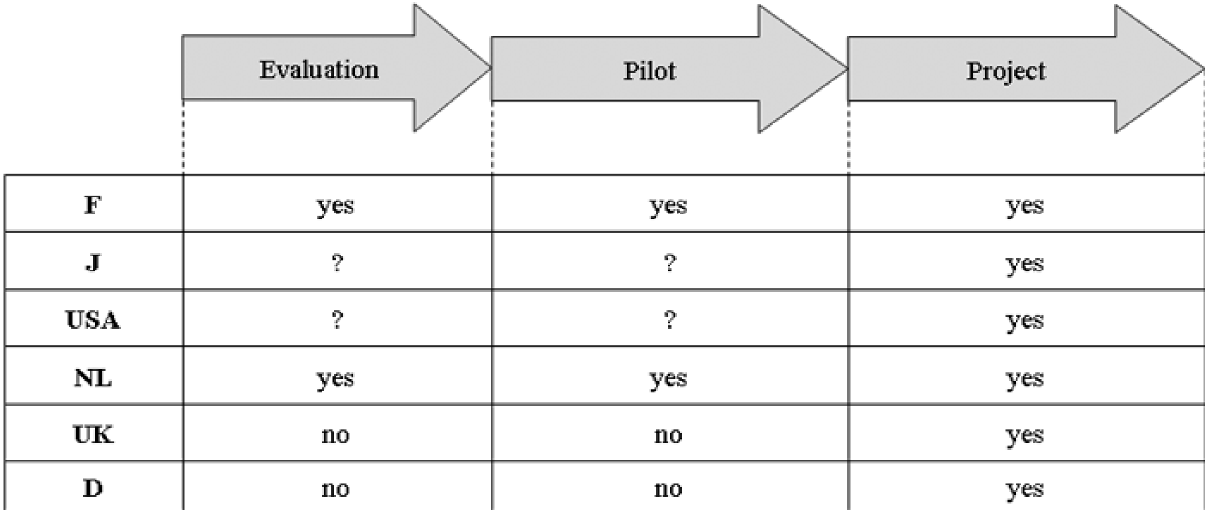

[66] Como Consulting: Öffentlich-Private Unternehmenspartnerschaften in Entwicklungsländern, Hamburg 2007, page 17

Neither of the extreme positions can be considered a benchmark and the institutional structures in each of the countries are so disproportionate that a uniform approach cannot be derived. The intersecting institutions need to find a consensus on targets and work together. The institutions could, for instance, cooperate through a common institution or dedicated departments which are closely linked together - especially in Germany where several ministries are affected. Programmes have to be clearly assigned to institutions so that the objectives of a project do not fail because of inter-parliamentary differences.

## 4.2 Country – Phase Considerations

Another cross-national focus is on the phases the selected countries offer support for. The following figure shows the situation in the selected donor countries.

**Figure 22: Country – Phase Table**



| | Evaluation | Pilot | Project |
|---|---|---|---|
| F | yes | yes | yes |
| J | ? | ? | yes |
| USA | ? | ? | yes |
| NL | yes | yes | yes |
| UK | no | no | yes |
| D | no | no | yes |

All countries support fully developed projects. The UK and Germany do not provide study or pilot funding on a broad basis. Germany actually did have programmes but these were cancelled due to a lack of participants and outcome. As far as Japan and the USA are concerned, it is unclear whether studies and pilots are supported. The ‘anything goes’ mentality of the US should also include earlier phases but this could not be stated clearly. Only France and the Netherlands offer specific programmes and funds to actively promote early project phases.

The table shows that the overall focus lies on projects rather than preceding evaluation and testing stages. This has to be viewed critically since proper feasibility studies can show the realistic potential and therefore lead to higher success rates as well as point out specific requirements. Furthermore, programmes supporting new business models encourage innovation in general since new ideas can be tested. Private participation is also prevented since the bidding costs for a project tender - which are usually very high - can be a constraint to participation. If companies can be familiarized with an investment step by step, a bigger group of participants can be expected.

The failed approaches of German institutions to give support in early phases are disturbing. A detailed analysis possibly reveals reasons for the failure which should be considered in a second approach to implement support.

## 4.3 Special Needs of Africa

This special consideration points out the importance of development engagements in Africa, particularly in Sub-Saharan Africa. The crisis in this particular region is alarming. All MDG focuses that hospital PPPs are directly involved in are affected there.[67]

- MDG1 – Poverty: Sub-Saharan Africa has one of the highest rates of unemployment and also the highest rate of employed people living below $1 a day.
- MDG4 – Child mortality: This region has by far the highest rate of child mortality. Even though great improvement have been achieved in the provision of basic vaccinations.
- MDG5 – Maternal mortality: There still is an extremely high level of maternal deaths (twice as many as in South Asia which is ranked second) and also a high level of adolescent fertility.
- MDG6 – Disease combat: Despite improvements the prevalence of HIV/AIDS in Sub-Saharan Africa is five times the average of other developing regions. Another disease that is very common in Sub-Saharan Africa is tuberculosis.

The IFC introduces Africa's special needs by pointing out that Sub-Saharan Africa has about 11 percent of the world's population but carries 24 percent of the global disease burden. This

[67] Data from WHO, World Health Report 2006: Working together for health, Geneva 2006

is measured in both human and financial costs. Almost half of the world's deaths of children under the age of five occur in Africa.
Global attention has already generated billions of dollars to combat the major diseases HIV/AIDS, tuberculosis (TB) and malaria. Still, most areas lack a basic infrastructure to provide minimal levels of health services. Comparing the disease burden with the rate of the world's health workers in Sub-Saharan Africa (only 3 %), a huge lack of medical personnel is obvious.[68]

These statistics point out the importance of engagements in development aid in Sub-Saharan Africa. Nevertheless, other regions should not be ignored either.

## 4.4 Impact of Financial Crisis

According to the World Bank and the IMF developing countries were buffered from the sub-prime meltdown until recently due to distance in the financial sector. Now that global economy is facing a recession a 'development emergency' is likely to come up. Exports are decreasing, governments are spending money to stabilize their own countries and donating private participants are losing money or are even threatened by insolvency.[69]

> *"Donors should urgently meet and exceed their aid commitments in the face of such looming threats… Although overall official aid rose by a welcome 10 percent between 2007 and 2008, it is still well short of the 2010 targets set at Gleneagles, including the specific targets for Africa."* [70]

To protect public investments social safety nets need to be established to help poor families cope with reduced incomes without having to cut back on education or health care. During the crisis and beyond, governments should continue to work closely with the private sector to take advantage of its potential to bring in innovation and flexibility. One action the G-20 leaders agreed upon is the financial strengthening of the IMF to three times the recent budget so that balance of payment issues in the global context can be dealt with.

[68] IFC (World Bank Group): The Business of Health in Afrika, Partnering with the Private Sector to Improve People's Lives, 2007, page iii, ix, xi, 4
[69] World Bank online: The Economic Crisis and the Millennium Development Goals, 24/04/2009
[70] World Bank online: The Economic Crisis and the Millennium Development Goals, 24/04/2009

> *„The World Bank Group's response to the financial crisis includes support to public-private partnerships in infrastructure projects that are now in distress, assistance to small and medium enterprises, and helping countries strengthen social safety nets.“* [71]

The financial crisis which started in autumn 2008 sharpens the development aid situation dramatically. On the one hand it increases the need for aid since more people around the world are becoming unemployed, on the other hand donors (governments and privates) have to cut short on spending. Increased and immediate action is to be taken and projects like hospitals should be implemented sooner rather than later.

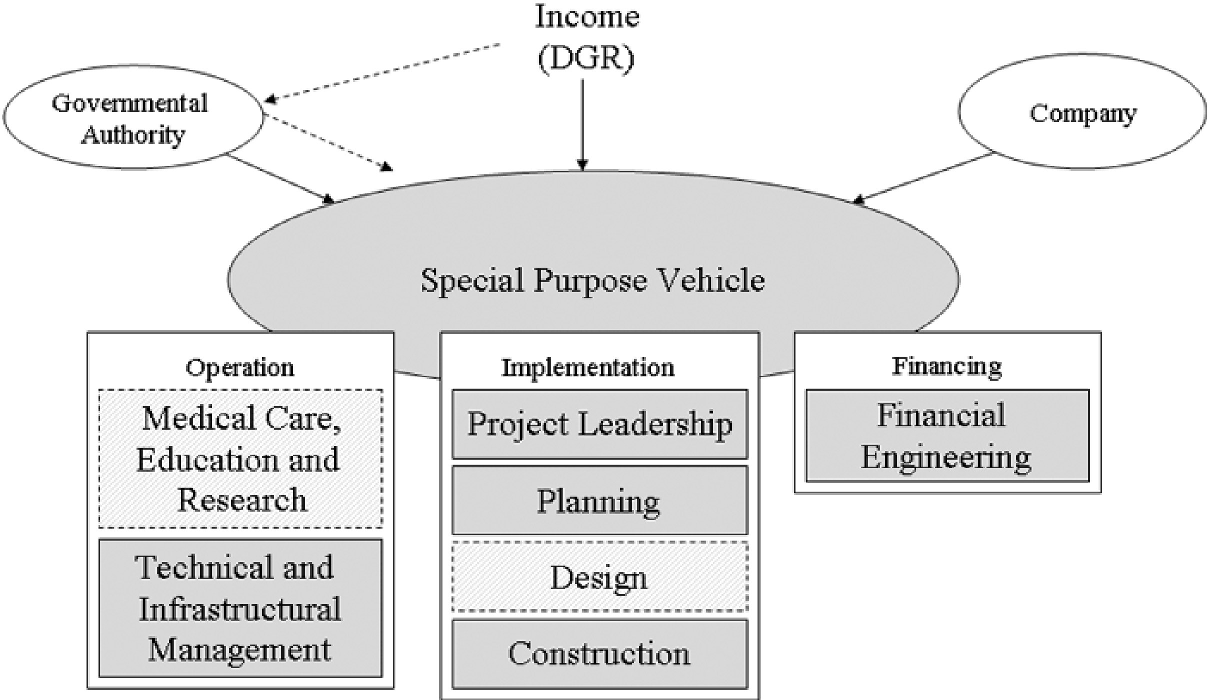
## 4.5 PPP – Example Model

In order to show how the theories of PPP creation can be applied this chapter explains a model based on the example of a German company.[72]

The legal form of the PPP is a special purpose vehicle also common in the UK PFI system. This legal entity enters into the concession contract, the lease or rental agreements and also obtains licences. This SPV is lead by a board made up of private and public representatives overlooking the actions, in particular finances, controlling and construction.

[71] World Bank online: The Economic Crisis and the Millennium Development Goals, 24/04/2009
[72] VAMED GmbH, Presentation: Private Public Partnership, Ein neuer Weg im Gesundheitswesen

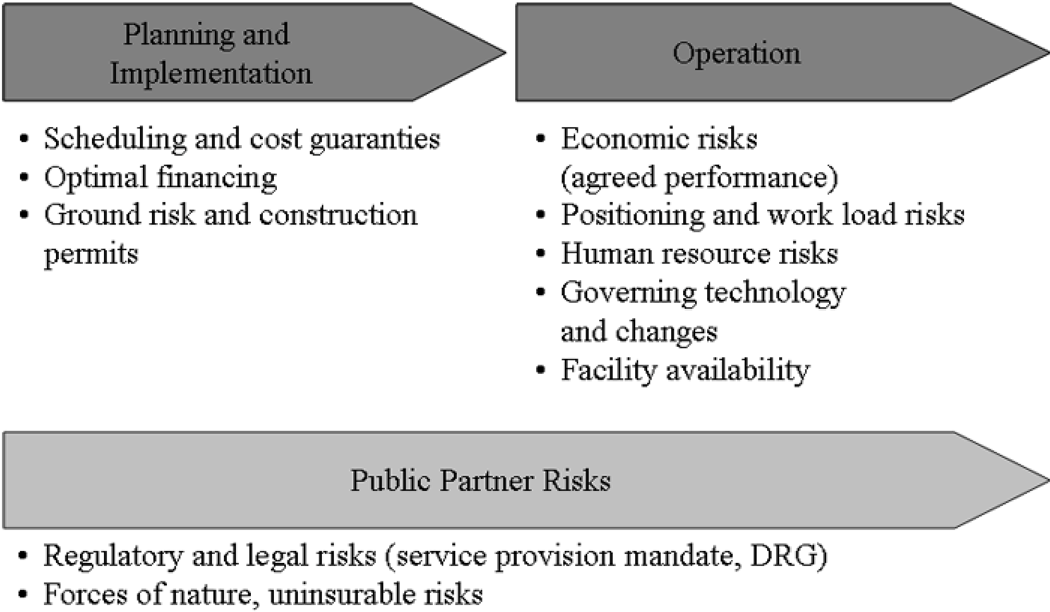
**Figure 23: PPP - Example Model**




Depending on the extent to which public partners are willing to hand over responsibility the included elements might change, e.g. the 'Medical Care, Education and Research' part sometimes remains in public control and only uses the hospital's facilities. Since medical operations generate the income (here: Diagnosis Group Related) these would stay with the public partners who then have to pay the SPV for the services received. In some cases the design element of hospitals also remains in public control. This can happen for regulatory reasons since a public bidding process is required where many design elements already have to be defined to show the extent and the value of the project.

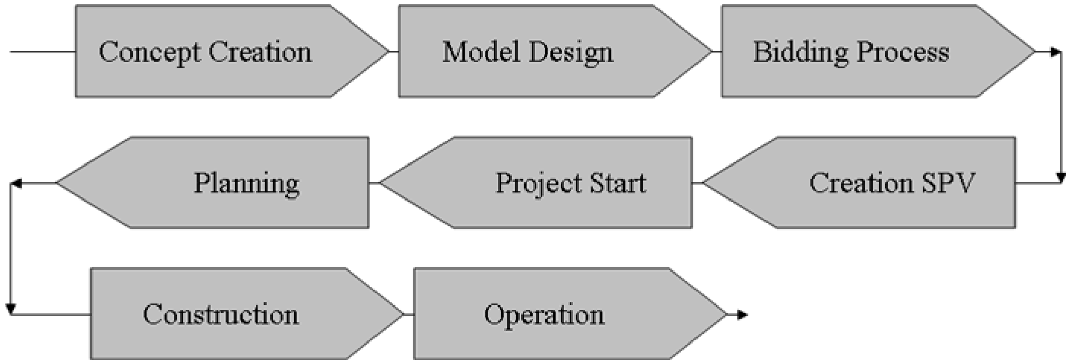
According to this model risks can be shared as shown in the following figure.

**Figure 24: PPP - Risk Sharing Example**




Furthermore, the model defines the following process for the creation of PPPs.

**Figure 25: PPP Creation - Process Example**




However, this model only includes partners of a single country. When transferring this model to development aid projects, the governmental partner might be from the target country. Furthermore, donor country institutions would act as consultants or as credit security. Further adjustments to this model are still necessary for the project objective.

# 5 Conclusion

> "As we move into the twenty-first century, the face of public health is changing. Governments, international health organisations, and non-governmental organisations, once the central actors in public health initiatives, are looking to the private sector for help. At the same time, private for-profit organisations have come to realize the importance of public health goals for their immediate and long-term objectives, and to accept a broader view of social responsibility as part of the corporate mandate."[73]

Hospitals play a central role in the health delivery system as they bring together health care, education and research. Thus, not only local health, but also welfare and future perspectives are stabilized. Through these functions several of the UN Millennium Development Goals are tackled:

- MDG 1: Eradicate Extreme Hunger and Poverty
- MDG 3: Promote Gender Equality and Empower Women
- MDG 4: Reduce Child Mortality
- MDG 5: Improve Maternal Health
- MDG 6: Combat HIV/AID, Malaria and other Diseases
- MDG 8: Develop a Global Partnership for Development

There is a great need for further investments in health systems, not only in developing countries but worldwide. Governments usually cannot provide enough funds for optimal health care coverage. In order to achieve this, private funds are required. Furthermore, hospitals are the biggest single matter of expense within a health system and are therefore an optimal point of action for cost optimisation.

Private- public partnerships are a promising way for private participation. They are not only a means of expanding the overall health budget, but also of applying management methodologies for optimal provision and resource usage.

The companies' home market competition is increasing. Also, amortisation cycles are becoming shorter. Consequently, companies should consider reorientation towards new

[73] Reich: Private- Public Partnerships for Public Health, Harvard University Press, 2002, page VII

opportunities. Due to delayed market demands in developing countries an extended product lifetime is possible and new opportunities are offered to companies active in the health sector.

Yet, experience in this field is not extensive. The concept of PPPs is applied and promoted worldwide in almost all fields of governmental provision - mainly in infrastructure (e.g. water, electricity or bridges), but also in the health sector. Nevertheless, PPPs that provide development aid by constructing hospitals are very rare. Most projects are either hospitals in developed countries or development aid PPPs for the provision of pharmaceuticals.

PPPs are usually in the legal form of a special purpose vehicle and can include different elements necessary for the construction and operation of hospitals. The most common are: design, build, operate and finance. Although these SPVs are managed by the private partners, the board of directors consists of both private and public partner representatives.

> "The problem is that the poor are normally not profitable. They are not in a position to pay for service or pay for connections in a way that all costs can be recovered by the private operator and profits in terms of dividends can be allocated to shareholders."[74]

When applying this concept a basic issue that must be considered is the revenue origin. In many developing countries only small parts of the population have health insurance and their solvency is questionable too. Further risks are unstable governments or economies and the high construction risk. Other risks include: cost, service quality, flexibility, complexity and finance. The basic idea behind PPPs is a sharing of risks between the parties according to what risk is manageable for the private partner.

Though promising, not all projects considered only had positive results. This paper shows that hospital PPPs as development aid are very complex. A lot of risks are involved which have to be analysed and weighted up. Many case-specific considerations have to be made. Governments are requested to establish a suitable legal framework and consistently follow agreed objectives. Targets, success and processes have to be clear and gaugeable. Still, renegotiations are likely to occur and then have to be conducted fairly. Research confirms that issues of budget and time belong to the most probable and that the service quality and

[74] Lobina (PSIRU) University of Greenwich: Fighting poverty with privatisations? Experience in the water sector, in Die Gewinne privat, das Risiko dem Staat? 18/11/2003, page 10

efficiency might be at risk. The financing of hospitals is also a very individual concern and depends on the existing assets and on the environment. The cross-subsidisation approach applied in Lesotho seems promising but is still in an experimental phase and requires a local upper class.

A standardized approach cannot be derived yet due to existing divergences in health and insurance systems. Furthermore, not all governments are willing to hand over responsibility for health care provision to this extent. Depending on the target country individual solutions and contracts need to be developed. This increases the overall risk. By gaining further experience contracts should become more standardizable in the near future.

France, Japan, the United States of America, the Netherlands, the United Kingdom and Germany are evaluated on how a PPP hospital as development aid can be supported by the government. This field is an intersection of development aid (ODA) and promotion of foreign trade. The research shows different legal backgrounds and objectives spanning from development aid as an instrument of foreign trade promotion (Japan) to a clear separation by law (UK). All countries offer support programmes to execute a project, but only France and the Netherlands clearly offer support over the whole process from feasibility studies and bidding support over pilots to full project implementations. Some countries already have over 20 years of experience including the construction of hospitals. Especially the UK's PFI programme offers a lot of experience even though solely applied within the UK.

Investments into health care in developing countries are necessary. Despite complexity and risk PPPs are a promising way to expand the budget and optimize resource usage. Availability of health services is undoubtedly increased through hospitals and is beneficial in many ways. Donating governments should proceed to establish legal frameworks in order to contain risks.

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# Appendix

Appendix 1: Success Factors for Hospital PPPs ........ e
Appendix 2: Risk Factors for Hospital PPPs ........ g
Appendix 3: Options for Financing Hospital PPPs ........ i
Appendix 4: Research Data (German) ........ i

**Appendix 1: Success Factors for Hospital PPPs**

Following statements are requirements found in the respective literature or in the project descriptions.

Political:

- Political leadership and commitment in the partnering country
- Stable, effective, supporting, institutional, structural frameworks politically as well as statutory
- Clear legal basis for PPPs:
    - Concessional jurisdiction
    - Cognizance
    - FDI laws
    - Taxation
    - Environmental legislation
    - Local land usage and planning regulations
    - Construction and operation regulations
    - Ombudsman
- Ability of the public partner to deal with the new role
- A common consensus between institutions in partnering country
- Embedding in national health strategy
- Clear agreements on decision finding processes and the sharing of power between private and public partner
- Autonomy and thereby flexibility of management
- On time payment of public contribution (contracted with sanctions)
- Competitive bidding is less efficient than a negotiated contract
- High competition in a fair and transparent bidding process is important
- Several projects at hand to motivate private partners

Economic:

- Economic stability in partnering country
- Extensive feasibility study also including demand data
- Close cooperation between the partners
- Clear, predefined, gaugeable specifications, targets and success as well as obligations and liabilities
- Predefined penalties for failure giving incentives rather than termination
- A common consensus between the private partners (e.g. that the project manager has the decision power)
- Involvement of local banks
- Availability of medicine and qualified personnel
- Machinery maintenance through private companies
- Precise definitions of outcomes and prices but freedom in service design
- Common definition of clear goals
- Common definition of management liability, indicators, control mechanisms and sanctions
- Common quality standards
- Creation of autonomous quality assurance system
- Long-term financing taking into account patients which are unable to pay
- Exploitation of further financial resources through sale of laboratory services or offering micro credits
- Conflict solving mechanisms (e.g. a board set up by parity including externals)
- Mechanisms for adjustment and flexibility of long-term contracts
- Consultancy through a neutral third party (e.g. IFC or World Bank)
- Risk coverage through international organisations (e.g. Multilateral Investment Guarantee Agency or IFC)
- Transparency on bidding process, contract design and partnership (internal and external)
- PPP experience on both sides
- Exit and termination regulations for case of contractual breach or due to an act of nature beyond control
- Flexibility in construction for future extensions
- Financial security for private partner during construction phase

- Long planning phases for detailed contract formulation
- Adequate contractual time scope (15-20 years)
- Precise agreement documentation

Social:

- Willingness of both partners to take and share risks to have a common motivation
- Strong private partner
- Strong public partner
- Involvement of local community (e.g. Community Advisory Board)
- Involvement of personnel since organisational culture has a positive effect on motivation and success
- Early workout of a personnel transfer concept from public to private
- Trust between public and private partners as well as an understanding of each others motivation
- Active stakeholder communication

Technical:

- Long-term involvement of local partners (e.g. NGO or University)
- Establishment of local hospital management structures

**Appendix 2: Risk Factors for Hospital PPPs**

Following statements are requirements found in the literature or in the project descriptions:

- Institutional integration of planning and construction
- Maximisation of the planning approach
- Exceeding complexity
- Unclear institutional liability in the partnering country
- Maintenance cost are long-term risk
- Personnel income must cover living expenses
- Income does not cover operational cost
- Disregarding of private providers in governmental health planning
- Incomplete management autonomy (to much governmental involvement in decision making)
- Lack of qualified personnel
- Delays through bureaucratic processes

- Influence of ethic loyalty on employment decisions
- 'Foreign' hospital is not accepted by locals
- Risk of delayed governmental payments
- Termination of funding
- Instability in hospital leadership
- Drawback of government out of related supply sectors
- Interest divergence within private consortia
- Break up of health system through to small cooperation between PPP- Initiatives and government or other health institutions
- Corruption
- Access to medicine
- High transaction cost
- Not enough possibilities to control and regulate through governmental side
- Inadequate consultancy during due diligence and implementation phase
- Lacking political support after change of government requires contractual specification of details
- Determination of needy patients according to their income → autonomous board recommended
- Lacking legal frameworks
- Private and public providers work parallel instead of integrated
- Insufficiently developed financial markets in partnering country
- Access to capital
- Lacking of understanding and competence on both sides resulting in a loss of commitment
- An adoption of real estate infrastructure bears higher risk for private partner
- Underestimation of financial and timely effort
- Complexity due to the many stakeholders
- Resistance within public organisations
- Information discrepancy between partners
- To high expectations on all sides regarding time scope and cost savings
- Insufficient planning regarding size and location
- Overhasty project implementation
- Underestimation of cost
- Quality is difficult to measure and can there for suffer

- Risk allocation due to complexity

**Appendix 3: Options for Financing Hospital PPPs**

Following statements are requirements found in the literature or in the project descriptions:

- ‘Money follows patient’
- DGR-compensation (Diagnosis Related Groups)
- Per-capita payments (case B4 insufficient)
- Subsidization of poorer population according to income
- Subsidization through local NGOs
- A mix of basic funding plus extra per patient
- Separate offerings for private and public patients for cross subsidisation
- Continuation of governmental financing as in replaced hospital
- Performance based financing
- Global budget for facility
- Locally anchored insurance system
- If uncertain: cost + revenue
- Involvement of major local companies through provision of employers (HMO-Idea)
- Concession as part of the income
- Service Vouchers

**Appendix 4: Research Data (German)**

**Übersicht zu PPP-Initiativen**

A - Programme im Gesundheitssektor

B - Projekte im Gesundheitssektor

C - Programme in den Bereichen Wasser, Energie, Transport u.a.

D - Projekte in den Bereichen Wasser, Energie, Transport u.a.

E - Sekundäre Literatur

## I ÜBERSICHT

A – Programme im Gesundheitssektor

| Nr | Land | Titel | EZ? | Initiator / Träger | Schwerpunkt des PPP-Gegenstands | PPP-Komponente(n) | | | | | | | Wirkungstendenz |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | D | B/R | F | M | O | T | Oth | |
| 1 | Großbritannien | Private Finance Initiative (PFI) | n | National Health Service (NHS) | Modernisierung der physischen Gesundheitsinfrastruktur (600 Projekte) mit Management der nicht-klinischen Dienste | j | j | j | j | n | j | ? | In puncto Qualität, Kosten, Flexibilität und Komplexität eher negativer Trend |
| 2 | Indien | Center zur primären Gesundheitsversorgung | n | Regional-regierung Orissa | Management von Centern zur Primärversorgung | n | n | j | j | n | n | n | Ausweitung der Versorgung auf bisher marginalisierte Bevölkerungs-gruppen |
| 3 | Indien | Transport für Schwangere | n | Gesundheits-ministerium der Regional-regierung | Transport schwangerer Frauen zur und von Geburtsklinik | n | n | n | j | n | n | j | Verbesserung des physischen Zugangs zu medizinischer Versorgung für arme, ländliche Bevölkerung |
| 4 | Kenya | Netzwork of Clinics | ? | NGO: The Christian Health Association of Kenya | Koordination von 363 Einrichtungen (inkl. 24 Krkh.) zur gemeinsamen Ressourcennutzung | ? | ? | ? | ? | ? | ? | ? | Kostensenkung |
| 5 | Ethiopia | Biruh Tesfa | ? | Ethiopia Government | 92 kleine Kliniken spezialisiert auf Geburtskontrolle | ? | ? | ? | ? | ? | ? | j | Kostensenkung durch gemeinsame Ressourcennutzung |

**D – Develop, B/R – Build/Rehabilitate, F – Finance, M – Manage/Operate,O – Own, T – Transfer, Others: z.B. Lease, Franchise**

**B - Projekte im Gesundheitssektor**

| Nr | Land | Titel | EZ? | Initiator / Träger | Schwerpunkt des PPP-Gegenstands | PPP-Komponente(n) | | | | | | | Wirkungstendenz |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | D | B/R | F | M | O | T | Oth | |
| 1 | Spanien | Alzira Hospital | n | Valencia Health Dept. | Modernisierung und Management eines Krankenhauses | ? | j | j | j | n | j | ? | Hohe Patientenzufrieden-heit bei verbesserter Effizienz |
| 2 | Süd Afrika | Hospital Co-Location | n | Free State Department of Health | Privater Investor betreibt eine Privatstation in einem sonst öffentlichen Krankenhaus | n | j | j | j | n | j | j | Schaffung von lokalen Arbeitsplätzen, Zugang für ärmere Bevölkerung zu neuer med. Technik, |
| 3 | Rumänien | Privatisie-rung von Dialyse-stationen | n | National Health Insurance Fund | Aufbau und Betrieb von acht Dialyse-Einrichtungen in öffentlichen Krankenhäusern | n | j | j | j | n | ? | n | Verbesserte Patientenversorgung zu niedrigeren Kosten, Verbesserte Qualität und höhere Zufriedenheit der Patienten |
| 4 | Kambodscha | Contracting with the private sector in Cambodia | j | Gesundheitsministerium | Management der primären Versorgung | n | n | n | j | n | n | n | Verbesserte Versorgung (11 Indikatoren) zu niedrigeren Kosten |
| 5 | Indien | Urban Health Center | n | Städtische Kooperation Ahmedabd | Betreiben eines Center zur primären Gesundheitsversorgung | n | n | n | j | n | n | n | Steigerung der Nutzerzahl |
| 6 | Pakistan | Zweites Familien-gesundheits-programm | j | Lokale pakistanische NRO | Betreiben von Familiengesundheitszentren durch NROs (PPP war nur kleine Komponente eines größeren Programms) | n | n | j | j | j | n | ? | Nur 3 von 15 geplanten Centern konnten realisiert werden |

| 7 | Pakistan | Basis-gesundheits-programm nördliche Bergregionen | j | Aga Khan Health Service (NRO) | Finanzierung von Primärversorgungszentren durch EZ, Bau und Betrieb durch NGO | j | j | j | j | j | n | n | Ausweitung der med. Versorgung in bisher unterversorgter Region |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 | Pakistan | Kinder-krankenhaus | j | Regierung von Belutschistan | Betrieb durch lokalen privaten Trägerverein | n | j | n | j | n | n | n | Krankenhaus ist fünf Jahre nach Inbetriebnahme nur zu 28,3% ausgelastet |
| 9 | Turks und Caicos Inseln (zu UK) | Sektorüber-greifende Gesundheits-einrichtungen | n | Regierung der Turks und Coicos Inseln | Bau und Betrieb von zwei sektorübergreifender Gesundheitseinrichtungen | ? | j | n | j | n | j | ? | Einrichtungen werden 2010 in Betrieb gehen. |
| 10 | Lesotho | Ersatz des Queen Elizabeth II Hospitals | j | Finanz-ministerium | Ersatz des Hauptstadtkrankenhaus | j | j | j | j | n | n | n | PPP Vereinbarung in 2007 unterzeichnet |
| 11 | Polen | Swiebodzice Krankenhaus | n | Swiebodzice Stadt | Übernahme von Infrastruktur, Modernisierung und Betrieb | n | j | j | j | j | ? | ? | Vertragsschluss in 2006 |
| 12 | Süd Afrika | Inkosi Albert Luthuli Hospital | n | Regierung Süd Afrika | IT-Infrastruktur, medizinische Geräteausstattung (Siemens) und Gebäudemanagement | n | n | j | j | n | ? | n | Vertragsschluss in 2002 |
| 13 | Papua Neu Guinea | Ok Tedi Miniging Limited | n | Provinz -Regierung | Behandlung öffentlicher Patienten im KH der Ok Tedi Mining Limited | j | j | j | j | j | n | j | Große Akzeptanz; Best Practice Beispiel für Versorgung von HIV/AIDS Patienten im privaten Sektor |
| 14 | Indien | Basic Health Project West Benagl | j | District Health and Family Welfare Samiti | Notfalltransport; Bereitstellung von Diagnostik-Dienstleistungen; Management von Primary Care Centern; Medikamentenversorgung | j | n | n | j | n | n | ? | Notfalltransport-system erheblich verbessert; Diagnostik-Projekt auf weitere Regionen ausgeweitet |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15 | Indien | CT Scan Services in Medical Colleges | n | Department of Health and Family Welfare | Bereitstellung und Betrieb von CT-Scannern | n | j | j | j | ? | ? | n | Reduzierung der Kosten eingetreten |
| 16 | Indien | Rajiv Gandhi Super-specialty Hospital | j | Provinz Regierung | Management eines Krankenhauses | n | n | n | j | n | n | n | Effizienterer, hochwertigerer und zeitnaherer Service für Patienten als unter öffentlichem Management |
| 17 | Indien | Gumballi Primay Health Center | j | Provinz Regierung | Betreiben eines Netzwerks von Gesundheitszentren und einer lokalen Mikrokrankenversicherung | n | n | n | j | n | n | n | Stark steigende Mitgliederzahl in KV; „exzellente“ Performance in PHC |
| 18 | Indien | Sugganahalli Primary Care Center | n | Provinz Regierung | | n | n | n | j | n | n | n | Steigende Nutzerzahlen und Verbesserte Gesundheit der Bevölkerung |
| 19 | England | Paddington Health Campus, London | n | NHS? | Konsolidierung mehrerer Ausbildungskrankenhäusern | ? | ? | ? | j | ? | ? | ? | Konsolidierung noch nicht abgeschlossen |
| 20 | Australia | La Trobe Regional Hospital | n | State of Victoria | Aufbau eines Krankenhaus (Ablösung Alter) | j | j | j | j | j | n | ? | Gescheitert. Nach Verlusten von Regierung gekauft |
| 21 | USA | Richmond, Virginia | n | Richmond Ambulance Authority | Ambulanz Dienstleistung | ? | j | j | j | n | n | ? | Bessere Versorgung durch erhöhte Konkurrenz |
| 22 | USA | Hawaii Emergency Medical Services | n | State of Hawaii | Ambulanz Dienstleistung | ? | ? | ? | j | ? | ? | ? | Fehlerhafte PPP Gestaltung |

**D – Develop, B/R – Build/Rehabilitate, F – Finance, M – Manage/Operate, O – Own, T – Transfer, Others: z.B. Lease, Franchise**

**C – Programme in den Bereichen Wasser, Energie, Transport u.a.**

| Nr | Land | Titel | EZ? | Initiator / Träger | Schwerpunkt des PPP-Gegenstands | PPP-Komponente(n) | | | | | | | Wirkungstendenz |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | D | B/R | F | M | O | T | Oth | |
| | | | | | | | | | | | | | |

**D - Projekte in den Bereichen Wasser, Energie, Transport u.a.**

| Nr | Land | Titel | EZ? | Initiator / Träger | Schwerpunkt des PPP-Gegenstands | PPP-Komponente(n) | | | | | | | Wirkungstendenz |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | D | B/R | F | M | O | T | Oth | |
| 1 | Senegal | Sénégalaise des Eaux | j | Regierung des Senegal | Wasserversorgung in der Region Dakar | n | j | j | j | n | j | j | Verbesserte Versorgung mit weniger Wasserverlusten bei Steigerung der Kundenanzahl |
| 2 | Ghana | The Community Water and Sanitation Projekt | j | Ministry of Work and Housing | Wasserversorgung und Abwasserentsorgung | n | n | j | n | n | n | j | Größere Versorgungs-dichte, bei starker Einbindung der Bevölkerung |
| 3 | Süd Afrika | Bloemfontein und Louis Trichardt Gefängnisse | n | Department of Correctional Services | Aufbau und Betrieb von Hochsicherheitsgefängnissen | j | j | j | j | n | j | n | Leistungsniveau viel zu hoch, einem Schwellenland nicht angemessen |
| 4 | Gabon | Societe d'Energie et d'Eau du Gabon | j | Government Gabon | Wasser und Stromversorgung für circa 500.000 Menschen | n | j | ? | j | n | j | n | Bessere Versorgung zu niedrigern Kosten |
| 5 | Süd Afrika | Dophin Coast | n | Dophin Coast/Ilembe Distric Munincipality | Strom- und Wasserversorgung sowie Wasserentsorgung für circa 560.000 Menschen | n | j | j | j | n | j | n | Verbesserte Versorgung zu höhern Nutzerkosten |
| 6 | Süd Afrika | Queenstown | n | Städtische Regierung | Wasserver- und Wasserentsorgung | j | j | j | j | n | j | n | Verbesserte, effizien-tere Versorgung die nicht für alle potentiellen Nutzer erschwinglich ist |
| 7 | Kolumbien | ACUACAR | j | Cartagena Stadt | Wasserversorgung für 900.000 Einwohner | n | j | j | j | n | j | n | Ausweitung der Wasserversor-gungskapazitäten und Infrastruktur |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 | Philippinen | Metropolitan Waterworks and Sewage System | j | Phillipinische Regierung | Wasserver- und Wasserentsorgung von 7,3 Millionen Einwohnern | j | j | j | j | n | j | n | Erhebliche Verbesserung in der Versorgung der urbanen Bevölkerung bei relativ stabilen Preisen |
| 9 | Tadschikistan | Elektrizitätsversorgung | J | Tadschikistan/ PamirEnergy/ (70%) IFC (30%) | Investition in Energiegewinnung und Verteilung ($ 26 Mio) | j | j | j | j | ? | ? | ? | Regierung sichert Grundversorgung |
| 10 | Argentinien | Aguas Argentinas | N | Konzession Aguas Argentinas | Versorgung armer Stadtteile mit Wasser | ? | j | j | j | ? | ? | ? | Mehrfache Neuverhandlungen minimierten den Leistungsumfang erheblich (< 50%) |
| 11 | Südafrika | ? | J | PPP mit Worldbank | Wasserversorgung unter Vollkostendeckung | ? | j | j | j | ? | ? | ? | Kostendeckende Preise zu hoch. Epidemie Auslöser |
| 12 | USA | El Paso County Water Treatment Services | N | El Paso County Water Authority | Qualitätsverbesserung in Wasserversorgung | j | j | j | j | j | ? | ? | Verbesserte Qualität |
| 13 | USA | Pocahontas Parkway | N | Virginia Dep. Of Transportation | Bau einer Autobahnbrücke | j | j | j | j | j | ? | ? | Verbesserte Versorgung |

## II WIRKUNGEN

### A – Programme im Gesundheitssektor

| Wirkungsbereich | Tendenziell eher positiv | Tendenziell eher negativ | Teils, teils | Nicht bekannt | Hier nicht relevant |
|---|---|---|---|---|---|
| Qualität der klinischen Dienste | (A2) | (A1) | | (A4) (A5) | (A3) |
| Qualität der nicht-klinischen Dienste | (A3) | | | (A1) (A2) (A4) (A5) | |
| Investitionskosten | (A4) (A5) | (A1) | | (A2) (A3) | |
| Betriebskosten | (A4) (A5) | | | (A1) (A2) (A3) | |
| Behandlungseffizienz | | | (A1) | (A2) (A4) (A5) | (A3) |
| Versorgungsgrad | (A2) (A3) (A4) (A5) | | | | (A1) |
| Einhaltung der Budgetplanung | (A1) | | | (A2) (A3) (A4) (A5) | |
| Einhaltung der Planungsfristen | (A1) | | | (A2) (A3) (A4) (A5) | |

N.B.: (1) bezieht sich hier auf das britische PFI- Programm

### B – Projekte im Gesundheitssektor

| Wirkungsbereich | Tendenziell eher positiv | Tendenziell eher negativ | Teils, teils | Nicht bekannt | Hier nicht relevant |
|---|---|---|---|---|---|
| | | | | | |

## D – Projekte in den Bereichen Wasser, Energie, Transport u.a.

| Wirkungsbereich | Tendenziell eher positiv | Tendenziell eher negativ | Teils, teils | Nicht bekannt | Hier nicht relevant |
|---|---|---|---|---|---|
| Qualität der Dienste | (D1) (D4) (D5) (D6) (D7) (D8) (D9) (D12) (D13) | | (D3) (D10) (D11) | (D2) | |
| Investitionskosten | (D5) (D6) (D7) (D8) | (D10) | | (D1) (D2) (D3) (D4) (D9) (D11) (D12) (D13) | |
| Betriebskosten | (D1) (D4) (D7) (D8) (D12) | (D3) | (D6) | (D2) (D5) (D9) (D10) (D11) (D13) | |
| Leistungseffizienz | (D1)(D3) (D4) (D6) (D7) (D8) (D9) (D10) (D11) | | (D5) | (D2) (D12) (D13) | |
| Versorgungsgrad | (D1)(D2) (D4) (D7) (D8) (D9) (D11) (D13) | (D10) | (D5) (D6) | (D12) | (D3) |
| Einhaltung der Budgetplanung | (D12) | (D10) | (D5) | (D1) (D2) (D3) (D4) (D6) (D7) (D8) (D9) (D11) (D13) | |
| Einhaltung der Planungsfristen | (D3) (D12) | (D10) | (D4) (D5) (D6) | (D1) (D2) (D7) (D8) (D9) (D11) (D13) | |

## F – Wirkungen aggregiert

| Wirkungsbereich | Tendenziell eher positiv | Tendenziell eher negativ | Teils, teils | Nicht bekannt | Hier nicht relevant |
|---|---|---|---|---|---|
| Qualität der Dienste | (A2) (B1) (B2) (B3) (B4) (B5) (B6) (B7) (B8) (B13) (B14) (B16) (B17) (B18) (D1) (D4) (D5) (D6) (D7) (D8) (D9) (D12) (D13) | (A1) | (D3) (D10) (B8) (D11) | (A4) (A5) (B9) (B10) (B11) (B12) (B15) (B19) (B20) (B21) (B22) (D2) | (A3) |
| Investitionskosten | (A4) (A5) (B2) (B3) (B15) (D5) (D6) (D7) (D8) | (A1) (B19) (B20) (B22) (D10) | | (A2) (A3) (B1) (B4) (B5) (B6) (B7) (B8) (B9) (B10) (B11) (B12) (B13) (B14) (B17) (B18)(B21) (D1) (D2) (D3) (D4) (D9) (D11) (D12) (D13) | (B16) |
| Betriebskosten | (A4) (A5) (B1) (B2) (B3) (B4) (B6) (B15) (B16) (B21) (D1) (D4) (D7) (D8) (D12) | (B8) (B20) (B22) (D3) | (B7) (D6) | (A1) (A2) (A3) (B5) (B9) (B10) (B11) (B12) (B13) (B14) (B17) (B18) (B19) (D2) (D5) (D9) (D10) (D11) (D13) | |
| Leistungseffizienz | (B1) (B2) (B3) (B5) (B6) (B15) (B16) (B17) (B18) (B21) (D1) (D3) (D4) (D6) (D7) (D8) (D9) (D10) (D11) | (B8) | (A1) (B4) (D5) | (A2) (A4) (A5) (B7) (B9) (B10) (B11) (B12) (B13) (B14) (B19) (B20) (B22) (D2) (D12) (D13) | (A3) |

| | | | | | |
|---|---|---|---|---|---|
| Versorgungsgrad | (A2) (A3) (A4) (A5) (B2) (B3) (B4) (B6) (B7) (B8) (B13) (B14) (B16) (B17) (B18) (B21) (D1) (D2) (D4) (D7) (D8) (D9) (D11) (D13) | (D10) | (D5) (D6) | (B1) (B5) (B9) (B10) (B11) (B12) (B15) (B19) (B20) (B22) (D12) | (A1) (D3) |
| Einhaltung der Budgetplanung | (A1) (B7) (B16) (D1) (D12) | (B22) (D10) | (B4) (B8) (D5) | (A2) (A3) (A4) (A5) (B1) (B2) (B3) (B5) (B6) (B9) (B10) (B11) (B12) (B14) (B15) (B17) (B18) (B19) (B20) (B21) (D2) (D3) (D4) (D6) (D7) (D8) (D9) (D11) (D13) | (B13) |
| Einhaltung der Planungsfristen | (A1) (B7) (B13) (D3) (D12) | (B8) (D10) | (B6) (D4) (D5) (D6) | (A2) (A3) (A4) (A5) (B1) (B2) (B3) (B4) (B5) (B9) (B10) (B11) (B12) (B14) (B15) (B17) (B18) (B19) (B20) (B21) (B22) (D1) (D2) (D7) (D8) (D9) (D11) (D13) | (B16) |

## III LERNEFFEKTE

### A – Erfahrungen aus dem Gesundheitssektor

| Erfolgsvoraussetzungen | Risiken | Finanzierungsmöglichkeiten |
|---|---|---|
| Politisches Leadership und Commitment zum PPP-Projekt auf Seite des Partnerlandes - auf allen Ebenen (B8) (E1) (E7) (E8) (E9) (E11) (E12) (E15)<br><br>Stabile, effektive, unterstützende, institutionelle, strukturelle Rahmenbedingen gesetzlich und politisch (Sektorreform) (B2) (B13) (E7) (E9) (E11) (E15)<br><br>Klare rechtliche Grundlage für das PPP-Projekt die auch durchsetzbar sind (B13) (E4) (E7) (E1) (E9) (E11)<br>• Konzessions-Gesetzgebung<br>• Gerichtsbarkeit (Land, Provinz, Stadt)<br>• Gesetzgebung zu ausländischen Investoren<br>• Steuer<br>• Umweltgesetzgebung<br>• Landnutzungs und Planungsvorschriften<br>• Bauvorschriften und Betreibervorschriften<br>• Schiedsstelle (E11)<br><br>Wirtschaftliche Stabilität im Partnerland (E11)<br><br>Umfassende Machbarkeitsstudie mit detaillierter Datenerhebung auch zu Bedarf | Institutionelle Verzahnung von Planung und Bau (A1)<br><br>Maximierung des Planungsansatzes (A1)<br><br>Übersteigerte Komplexität (A1)<br><br>Unklare Verantwortungsverteilung zwischen Regierungsstellen im Partnerland (B6)<br><br>Wartungskosten sind langfristiges Risiko (B6)<br><br>Löhne müssen Lebenshaltungskosten des angestellten Personalsdecken (B6)<br><br>Unzureichende Deckung der Betriebskosten durch erwirtschaftete Erträge (B6) (B8) (B17)<br><br>Nichtberücksichtigung privater Einrichtungen in staatlicher Gesundheits(infrastruktur)planung (B7) (E8)<br><br>Keine/zu geringe Entscheidungsautonomie auf Managementebene – bzw. zu starke Vorgaben/Einmischung von Regierung des Partnerlandes (B8) (B16) (B17) (B18) (E7)<br><br>Mangel an qualifiziertem (para)medizinischen Personal (B8) (B16) (B17) (B18) (E7) | „Money follows patient“ (B1)<br>DRG-Vergütung (E10)<br>Kopfpauschale; im Beispiel B4 nicht kostendeckend (B4) (B9) (E1)<br><br>Subventionierung armer Bevölkerung durch nach Einkommen gestaffelte Beiträge (B6)<br><br>Bezuschussung der Versorgung der ärmeren Bevölkerung durch lokale NRO / Geberorganisationen (B8) (B13)<br><br>Mix aus Grundfinanzierung auf Basis von Planvorhaben und Leistungserfüllung sowie auf Fallzahl bezogene Zusatzvergütung bei gewünschten Verfahren (Geburtshilfe etc.)(E7)<br><br>Verschiede Ausstattung privat/öffentlicher Teil rechtfertigt Quersubventionierung (B10)<br><br>Weiterführung der staatliche Finanzierung aus dem ersetzten Krankenhaus (B10)<br><br>Finanzierung basierend auf Performance (E1)<br><br>Global Budget für Einrichtung (E10)<br><br>Lokal verankerte Versicherungssysteme (B9) (E8) (E11) |

| | | |
|---|---|---|
| (B13) (E1) (E7) (E12) (E14)<br><br>Enge Kooperation zwischen Partnern (B4) (E1)<br><br>Kare messbare Vorgaben (Leistungen), Ziele und Erfolgsindikatoren, Verpflichtungen und Verantwortungen - vor Beginn festlegen (B2) (B9) (E1) (E9) (E11)<br><br>Vorgabe von Strafregelungen bei nicht Erfüllung welche Anreiz bieten und nicht zwangsläufig Ausfall kompensieren (B9) (E11)<br><br>Beide Partner müssen gewillt sein Risiken einzugehen / Risikoteilung → gemeinsame Motivation /B2) (E1) (E9) (E12) (E14)<br><br>Starke private Partner – Finanzierung und Provider) (E11)<br><br>Starker öffentlicher Partner (B2)<br><br>Fähigkeit des öffentlichen Partners seine (neue) Rolle zur erfüllen (Einkäufer und Regulator; Management von PPP Programmen) (B13) (E9) (E14) (E15)<br><br>Einigkeit zwischen den öffentlichen Stellen im Partnerland (E1)<br><br>Einigkeit zwischen den Beteiligten im privaten Konsortium – z.B. Entscheidungsgewallt bei einem Projektmanager (E12) | Verzögerung durch bürokratische Verfahren (B8)<br><br>Einfluss von ethnischen Loyalitäten bei Personaleinstellung (B8)<br><br>„Ausländisches" Krankenhaus wird von der Bevölkerung nicht angenommen (B8)<br><br>Unsicherheit bezügliche der (zeitnahen) Auszahlung von Zuschüssen des Partnerlandes (B8) (B16) (B17) (E7) (E9)<br><br>Wegbrechen des Funding (E9)<br><br>Instabilität in der Führung des Krankenhauses (B8)<br><br>Rückzug des Staates aus angrenzenden Versorgungsbereichen und -sektoren(E4)<br><br>Interessensdivergenzen innerhalb des privaten Konsortiums (E4)<br><br>Zersplitterung des Gesundheitssystems durch zu geringe Kooperation zwischen PPP-Initiativen und staatlichen Providern/anderen Gesundheitsinitiativen (E4)<br><br>Korruption (E7)<br><br>Zugang zu Medikamenten (E7)<br><br>Hohe Transaktionskosten (E1) | Bei Ungewissheit: Kosten + Gewinn (B9)<br><br>Einbezug (größerer) lokal ansässiger Firmen – Versorgung der Arbeiter – im HMO-Style (B13)<br><br>Konzession als Anteil der Einnahmen (hier 5%) (B14)<br><br>Begrenzung der Netto-Profite (E1)<br><br>Voucher für bestimmte Service (E17) |

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<tr>
<td>Einbindung der lokalen Bevölkerung – z.B. Community Advisory Board (B7) (B16) (E1) (E8) (E9) (E12) (E21)<br><br>Einbindung des Personals / Unternehmenskultur wirk sich positiv auf Motivation und Erfolge aus (B1) (B7)<br><br>Frühzeitige Erarbeitung eines Konzeptes zum Personalübertritt Public → Private (E12)<br><br>Einbindung eines lokalen Partners (z.B. NRO, Universität) (B7) (E7)<br><br>Langfristige Einbindung der Einrichtungen in Referenzsystem (B7) (E1) (E11)<br><br>Einbindung in nationale Gesundheitsstrategie (E1)<br><br>Einbindung lokaler Banken im Partnerland (E11)<br><br>Ausstattung mit Medikamenten und mit qualifiziertem Personal (B7)<br><br>Wartung der Geräte durch private Firmen (B8)<br><br>Klare Absprachen über Entscheidungsprozesse und Machtverteilung zwischen privatem und öffentlichem Partner (Rollenfestlegung) (B13) (E4) (E7) (E9)<br><br>Autonomie und daraus entstehende Flexibilität</td>
<td>Ungenügende Möglichkeiten der öffentlichen Stellen zu Regulieren und zu Überwachen (E9)<br><br>Mangelnde Beratung in Due Diligence Phase und in Umsetzungsphase (E10)<br><br>Nach politischem Wechsel/Veränderung von Schwerpunkten fehlt Unterstützung → Vertragliche Spezifizierung von Details (B9) (E10) (E12) (E22)<br><br>Ermittlung welche Patienten kostenlose bzw. vergünstigte Behandlung auf Grund ihrer (Einkommens)Situation erhalten (B16) (E9) → unabhängiges Board zu Überwachung/Einteilung<br><br>Fehlende Rechtliche Rahmenbedingungen (E8) (E14)<br><br>Parallelität von privaten zu öffentlichen Einrichtungen statt Integration (E8)<br><br>Unzureichend ausgebildeter Kapitalmarkt im Partnerland (E11)<br><br>Zugang zu Kapital (E11)<br><br>Mangelndes Verständnis und Kompetenz auf beiden Seiten → Verlust von Commitment (auf öffentlicher Seite) (E11)<br><br>Bei der Übernahme von Gebäudeinfrastruktur</td>
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| im Management (B4) (B6) (B16) (E7) (E9) (E20)<br><br>Exakte Festlegung von Outcomes und Preisen – aber Freiheit in der Leistungsgestaltung (E12)<br><br>Gemeinsame Definition klarer Ziele (E7)<br><br>Gemeinsame Festlegung der Managementverantwortung, Indikatoren, Controllingmechanismen und Sanktionen (E7) (E9)<br><br>Gemeinsame Festlegung von Qualitätsstandards (E9)<br><br>Einrichtung eines unabhängigen Qualitätssicherungssystems (E7) (E14)<br><br>Langfristig gesicherte Finanzierung unter Berücksichtigung zahlungsunfähiger Patienten (E7)<br><br>Erschließung weitere finanzieller Ressourcen durch Verkauf von Laborleistungen; Mikro-Versicherung etc. (E7) (E11)<br><br>(pünktliche) Mittelzuweisung durch Regierung (Vertraglich festhalten – mit Sanktionen)(E9)<br><br>Aufbau lokaler KH-Managementstrukturen (E7) | besteht ein erhöhtes Risiko für den privaten Partner (E11)<br><br>Unterschätzung des finanziellen und zeitlichen Aufwand (B9)<br><br>Komplexität auf Grund der vielen Stakeholder (E12)<br><br>Bei Betreibermodell: Versorgungskosten auf Regierungsseite unbekannt → Wert der privaten Leistung schwer zu ermessen (E12)<br><br>Widerstand innerhalb der öffentlichen Organisation (E12)<br><br>Informationsasymmetrie zwischen den Partnern (E12)<br><br>Zu hohe Erwartungen auf allen Seiten – Umsetzungszeitrum, Einsparungen usw. (E12)<br><br>Unzureichende Planung (Größe, Ort) (E14)<br><br>Übereiltes Verfahren zur Umsetzung des Projektes (E14)<br><br>Kosten werden unterschätzt (E20)<br><br>Qualität ist schlecht messbar und kann leiden (E20)<br><br>Risikoverteilung aufgrund der Komplexität (E15) | |

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| Konfliktlösungsmechanismen: z.B. paritätisch besetztes Aufsichtsgremium welches auch „neutrale“ externe Mitglieder umfasst (B5) (E12)<br><br>Anpassungsmechanismen und Flexibilität in langfristigen Verträgen (B9) (E1) (E11)<br><br>Vertrauen zwischen öffentlichen und privaten Partnern sowie Verständnis für die jeweiligen Motive (B9) (B13) (E1) (E9) (E12)<br><br>Beratung/Vermittlung durch neutralen Dritten (IFC, World Bank etc.) (B13) (B16) (E1) (E11) (E12)<br><br>Risikoabsicherung durch internationale Organisationen (z.B. Multilateral Investment Guarantee Agency oder IFC) (E11)<br><br>Transparenz in Bieterprozess, Vertragsgestaltung und in Zusammenarbeit – nach außen wie zueinander (E1) (E11) (E12) (E14)<br><br>Initiierung durch wettbewerbliche Ausschreibung ist weniger effizient als ein verhandelter Vertrag (E9)<br><br>Hoher Wettbewerb zwischen verschiedenen Bietern in einem fairen und transparenten Ausschreibungsverfahren wichtig (E11) (B9)<br><br>Erfahrung mit PPP auf beiden Seiten (E9) | | |

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| Mehrere Deals in der Pipeline um private Akteure zu motivieren (E11)<br><br>Ausstiegsregelungen bei Vertragsbruch von öffentlicher oder privater Seite sowie bei höherer Gewalt (E11)<br><br>Flexibilität in der Baustruktur um zukünftig Änderungen vornehmen zu können (E11) (E12)<br><br>Schaffung von finanzieller Sicherheit für privaten Partner während Bauphase (B9)<br><br>Langen Planungszeitraum einräumen um Details auszuformulieren (B8) (E12) (E15)<br><br>Ausreichende Länge des Vertrages min. 15-20 Jahre (E12)<br><br>Exakte Dokumentation von Absprachen (E12)<br><br>Aktive Stakeholder Kommunikation (E21) | | |

N.B.: A1 = Projekt (1) aus A, B1 = Projekt (1) aus B, E1 = Literaturquelle 1 (in diesem Fall Löning-Paper)

**B – Erfahrungen aus anderen Sektoren**

| Erfolgsvoraussetzungen | Risiken | Finanzierungsmöglichkeiten |
|---|---|---|
| Politisches Leadership und Commitment auf Seite des Partnerlandes für PPP (D1) (D2) (D4) (D7) (D8) (E5) (E6) (E19) | Übertragung von Besitz aus Staatsbetrieb kritisch - monetäre Überbewertung (D1) (E3) | Subventionierter Basistarif für Benachteiligte aber kein kostenloser Zugang(D1) |
| Klare rechtliche Grundlarge (D2) (D4) (D5) (D7) (D8) (E3) (E5) (E6) (E15) | Zu enge Kriterien bei Finanzgebern (D2) | Subvention der Versorgung ärmer Bevölkerungsteile durch höhere Gebühren für reichere Bevölkerungsteile (D4) |
| Akkurate Möglichkeitsstudie mit Schwerpunkt auf lokalen Kontext (Bedarf, Zahlungsfähigkeit; mit Designaspekten und vollständiger Bewertung durch Ingenieure) (D3) (D5) (E15) (E17) | Keine/schlechte Koordination zwischen Betreiber und staatlichen Institutionen im Partnerland (D7)<br>(E5) | Versorgung armer Bevölkerungsteile durch staatliche Zuschüsse (D5) (E6) |
| Analyse des Projektes nach finanziellen, sozialen und umwelttechnischen Aspekten (Poverty and Social Impact-Analysis (E15) (E17) | Partnerregierung hält Investitionen zurück, wenn es durch den privaten Betreiber bereits zu Verbesserungen gekommen ist (E2) | Konzession basierend „rate-of-return“ sind besonders stabil (E3) |
| Bei Kooperation mit semi-staatlichen Organisation muss diese selbständig und kompetent sein (D1) (D2) | Regierung nutz hohe Sunk Costs des Investors um nachträglich bessere Konditionen zu erzwingen (E3) | Angebot verschiedener Leistungspakete um Zugang für ärmere Bevölkerungsteile zu ermöglichen (E6) |
| Starker und kompetenter Partner im Gastland ist notwendig (D4) (D5) (E5) | Zu hohe Erwartungen auf allen Seiten (E3) (E5) | Vergütung basierend auf Leistungsanreiz für Privaten (E15) (E20) |
| | Preisanpassungen werden politisch nicht mitgetragen (E3) (E6) | Leasing durch Regierung (E15) |
| | | Regierungsgarantien zur Leistungsübernahme (E15) |

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| Partnerland muss neue Rolle (Kontrollfunktion, Regulator, Purchaser) übernehmen können (E17) | Investitionen in harter Währung können nur durch Erträge ich weicher Währung des Partnerlandes bedient werden (E3) (E5) (E6) (E17) | Regierung leit Gelder bei Banken und leiht diese an Privaten Partner weiter → Reduzierung von Finanzierungskosten da Regierung günstigere Konditionen bekommt (E15) |
| Partnerland muss das Risiko PPP tragen können (E17) | Übertragung der Standards aus Industrieländern auf Entwicklungsländer führt zu unnötig hohen Kosten und zum Ausschluss der ärmeren Bevölkerung (E3) (E6) | Sicherstellung einer Grundversorgung durch Regierung des Partnerlandes (E17) |
| Partnerland sollte Verfahren/Ressourcen zur Bewertung und Durchführung von PPPs haben(E15) | Sinkende Nachfrage als Folge der Umwandlung in PPP (E5) (E6) | Special Purpose Vehicle ~ Konsortium (E15) |
| Einbindung von Stakeholdern (Gewerkschaften, Arbeitnehmer; Bevölkerung) (E15) (E17) | Uneinigkeit zwischen verschiedenen politischen Institutionen des Partnerlandes (E5) | |
| Einbindung lokaler Bevölkerung in den Prozess (D7) (E6) (E17) | Politische Wechsel (E5) (E6) | |
| Einbindung lokaler Wirtschaft und Unternehmen (E6) (E17) | Korruption (E6) (E17) | |
| Einbindung unabhängiger Spezialisten (z.B. IFC) (D8) (E6) | Strom und Wasser sind nicht permanent vorhanden (E6) | |
| Klare Festlegung der Tarife und Anhebungsverfahren zwischen beiden Partnern | <u>Baurisiken</u><br>- Baukostenanstieg | |

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| (D8) (E6)<br><br>Entwicklung einer neuen Unternehmenskultur (D8)<br><br>Flexibilität in der Organisation (D8)<br><br>Fokus auf Effizienz (D8)<br><br>Finanzierung sollte so gestaltet sein, dass privater Provider Anreize hat Ziele zu erreichen (E3) (E7) (E15)<br><br>Bestehen einer durchsetzungsfähigen, unabhängigen regulierenden Instanz (E5) (E17)<br><br>Konfliktlösungsmechanismen (Komitee) im von Beginn an Vertrag festlegen (D6) (E15) (E17)<br><br>Unterstützung durch Entwicklungshilfe: Capacity Building beim öffentlichen Partner; teilweise Risikoübernahme, Übernahme der Regulatorfunktion (E5) (E6) (E17) | - Bauverzögerung<br>- Technische Unzulänglichkeiten<br>- Äußere negative Effekte<br>- Zu niedriger Standard (E15)<br><br>Finanzielle Risiken<br>- Wechselkursschwankungen (E17)<br>- Zinsrisiken (E15)<br><br>Nachfragerisiko<br>- Marktveränderung<br>- Wettbewerb<br>- Technologische Entwicklung<br>- Nachfragerückgang (E15)<br><br>Ausführungsrisiko<br>- Zugang zur Anlage<br>- Qualität in der Service Ausführung (E15)<br><br>Unklarer Haftungsumfang (E16)<br><br>Staat ist nicht in der Lage Kontrollfunktion auszuüben (E17)<br><br>Keine vollständige Kostendeckung möglich aufgrund der Bevölkerungsstruktur (Armut) (E17) | |

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<td>Klare Festlegung der Risikoteilung (E16) (E17)<br>- Teilung von Finanziellen- und Nachfrage- Risiko (staatliche Garantien)<br>- Bau- und Ausführungsrisiko bei privatem Betreiber (E15)<br><br>Klare Festlegung von Verpflichtungen und Rechten auch die von Finanzieren (E15) (E17)<br><br>Vergütung basierend auf Leistungsanreiz für Privaten (E15) (E16)<br><br>Verträge sollten standardisiert, transparent und möglichst vereinfacht sein (E15) (E17)<br><br>Transparenz (D4) (D5) (E3) (E6) (E17)<br><br>Festlegung von Nachverhandlungsverfahren (E15)<br><br>Wettbewerbliche Ausschreibung um a priori Wettbewerb zu schaffen (E16) (E17) (E15)<br><br>Erfolg ist am größten wenn privater Partner die gesamte Kette Design, Bau, Finanzierung, und Betrieb übernimmt (E16)</td>
<td>Nicht-Absicherung/Nicht-Einbezug der armer Bevölkerungsteile macht Projekt aus EZ-Sicht angreifbar (E17)<br><br>Technologischer Fortschritt bei Art der Versorgung kann Anforderungen erhöhen (E15)</td>
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| Niveau des Service angepasst an (arme) Konsumenten bzw. deren Zahlungsfähigkeit (E17)<br><br>Technologie an lokale Bedingungen anpassen (E17)<br><br>Vertraglich fixierte Qualität (E15) | | |

| Übersicht Paper zum Thema PPP | |
|---|---|
| E1 | Wilton Park Conference 9.-11.April 2008: *Public Private Investment Partnerships in Health System Strengthening – Conference Report.* Wilton Park, 2008. |
| E2 | Gassner, Popov, Pushak: *Does Private Sector Participation Improve Performance in Electricity and Water Distribution?* The World Bank Group, PPIAF 2009. |
| E3 | Harris, Clive: *Private Participation in Infrastructure in Developing Countries: Trends, Impacts, and Policy Lessons.* The World Bank Group, 2003. |
| E4 | Nishtar, Sania: *Public-private partnership in health – a global call to action.* In: Health Research Policy and Systems, 2:5, 2004. |
| E5 | Thomsen, Stephen: *Encouraging Public-Private Partnerships in the Utilities Sector: The Role of development assistance.* NEPAD/OECD Investment Initiative, 2005. |
| E6 | Farlam, Peter: *Working Together – Assessing Public-Private Partnership in Africa.* The South African Insitute of International Affairs, 2005. |
| E7 | Niechzial, Michael; Gesing, Kai: *Privatsektorbeteiligung im Krankenhausbetrieb.* KfW Entwicklungsbank, 2007. |
| E8 | Jütting, Johannes: *Public-private-partnership and social protection in developing countries: the case of the health sector.* Zentrum für Entwicklungsforschung, Universität Bonn, 1999. |
| E9 | Raman, Venkat A.; Björkman, James W.: *Public-Private Partnership in the provision of health care services to the poor in India.* University of Delhi, University of Den Haag, ohne Jahr. |
| E10 | Wilton Park Conference 9.-11.April 2008: *Public Private Investment Partnerships in Health System Strengthening – Background Paper: Global Trends in health Care Public-Private Partnership.* Wilton Park, 2008. |

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|---|---|
| E11 | Wilton Park Conference 9.-11.April 2008: *Public Private Investment Partnerships in Health System Strengthening – Background Paper: Options to structure and fund ppps in developing countries.* Wilton Park, 2008. |
| E12 | Wilton Park Conference 9.-11.April 2008: *Public Private Investment Partnerships in Health System Strengthening – Background Paper: Privatisation in the Public Interest: Key Success Factors in Purchasing Health Services from the Private Sector,* 2008. |
| E13 | Wilton Park Conference 9.-11.April 2008: *Public Private Investment Partnerships in Health System Strengthening – Background Paper: What can we learn from Public-Private-Partnerships in Infrastructure?* Wilton Park, 2008. |
| E14 | Nikolic, Irina A.; Maikisch, Harald: *Public-Private Partnership and Collaboration in the Health Secotor.* The World Bank, 2006. |
| E15 | International Monetary Fund: *public-private partnerships.* The World Bank, 2004. |
| E16 | De Bettignies, Jean-Etienne; Ross, Thomas W.: *The Economics of Public-Private Partnership.* In: Canadian Public Policy, 2004. |
| E17 | Institute for Health Sector Development: *Private Sector Participation in Health Sector Cooperation – Opinions and Expertise.* KfW-Bankengruppe, 2004. |
| E18 | Arbeitsgemeinschaft Swissaid: *Die Gewinne privat, das Risiko dem Staat?* Tagungs-Dokumentation, Bern, 2004. |
| E19 | Lobina, E.: *Fighting poverty with privatisations?* Experience in the water sector, 2004. |
| E20 | McKee; Edwards; Atum: Public Private Partnership for hospitals, 2006. |
| E21 | Siegel; Peters; Kamara: *Health Reform in Africa, Lessons from Sierra Leone.* World Bank, 1996. |