

# Eradicating Data Poverty

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*Measuring MDG1 as part of the current and future Development Goals*

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## **Preface**

It is with pleasure that I hereby present my Bachelor thesis on the conceptualization of poverty as part of the Millennium Development Goals. It is not only the outcome of an extensive research process, but also the final research project of my Bachelor's in Interdisciplinary Social Sciences. Therefore it can be seen the product of my academic development over the past three years. This research strengthened my passion for development studies, broadened my interdisciplinary orientation and deepened my mixed-methods research skills.

I would like to thank Anne de Jong for her supervision and feedback as well as Debby Gerritsen, who has been much more than a second reader of this research. I would also like to thank Pepijn Olders, who inspired me to broaden my interdisciplinary orientation by including econometrical analyses. Furthermore I would like to thank my parents, Querine Hoejenbos and Jouke Huijzer for their continued support.

In addition to the scientific and societal relevance of this research, this thesis has proven to be of great personal relevance. It encouraged me to apply for the Global Poverty and Inclusive Development Summer School. More important, it confirmed my ambition to continue my studies in the Research Master's in International Development Studies. I therefore regard this research project as the first of many to follow.

Amsterdam, June 2014

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## **Abstract English**

This interdisciplinary research concerns the conceptualization and measurement of poverty as part of the Millennium Development Goals (MDGs) from the perspective of inclusive development. The relevance of this topic is illustrated by the ongoing negotiations on the follow up post-2015 Development Agenda, in which poverty eradication is of central importance.

Although the MDGs are seen as a huge success based on the progress on the field of poverty reduction, these results have proven to be very uneven. The conceptualization, measurement and results of poverty reduction as part of the MDGs have been examined through the employment of a mixed-methods strategy. Semi-structured interviews have provided insight in the multidimensional and relative nature of development and poverty. The MDGs have been criticized from this perspective, since the existing framework has not addressed inequality adequately. This has contributed to the limited effectiveness of the MDGs as confirmed by a secondary quantitative data analysis of poverty between 2000 and 2008. Although limited data is available, it can be concluded that most poverty reduction is the consequence of economic growth in China and India that is mostly unrelated to the MDGs. Instead MDG-related development assistance was found to be negatively related (or in the case of Sub-Saharan Africa, unrelated) to poverty eradication.

The poverty gap has proven to be of central importance to measure the depth of poverty over time and thereby assess to what extent development has been inclusive. Since the reduction of the poverty gap was proven to be strongly related to the reduction of inequality, this measure is of great relevance to promote inclusive development in the future. Additionally, the use of national and multiple poverty lines can provide more insight in relative poverty. By eradicating the existing poverty of data, the future Post-2015 Development Goals can monitor and promote poverty eradication more effectively in the future.

## **Abstract Dutch**

Dit interdisciplinaire onderzoek betreft de conceptualisering en meting van armoede als onderdeel van de Millenniumdoelen (MDGs) vanuit het perspectief van inclusieve ontwikkeling. De relevantie van dit onderwerp volgt uit de onderhandelingen over de post-2015 Development Agenda, waarin het uitbannen van armoede van centraal belang is.

Ondanks dat de MDGs gezien worden als een groot succes gebaseerd op de voortgang op het gebied van armoedereductie, zijn de resultaten erg ongelijkmatig. De conceptualisering, meting en resultaten van armoedereductie als deel van de MDGs zijn onderzocht door middel van een mixed-methods strategie. Semi-gestructureerde interviews hebben inzicht gegeven in het multidimensionale en relatieve karakter van ontwikkeling en armoede. De MDGs zijn bekritiseerd vanuit dit perspectief, aangezien het bestaande framework ongelijkheid niet voldoende geadresseerd heeft. Dit heeft bijgedragen aan de beperkte effectiviteit van de MDGs, zoals bevestigd door een secundaire kwantitatieve data analyse van armoede tussen 2000 en 2008. Ondanks de beperkte beschikbaarheid van data kan geconcludeerd worden dat de meeste armoedereductie het resultaat is van economische groei in China en India, dat grotendeels niet gerelateerd is aan de MDGs. Aan de MDGs gerelateerde ontwikkelingssamenwerking had integendeel een negatief effect (of geen effect, in het geval van Sub-Saharisch Afrika) in relatie tot armoedereductie.

De poverty gap bleek van centraal belang te zijn om de diepte van armoede te meten door de tijd heen en zo te evalueren in welke mate ontwikkeling inclusief is geweest. Omdat de afname van de poverty gap sterk gerelateerd bleek aan de afname van ongelijkheid, is deze indicator van grote relevantie om inclusieve ontwikkeling te bevorderen in de toekomst. Daarnaast kan het gebruik van nationale en meervoudige armoedegrenzen meer inzicht geven in relatieve armoede. Door het uitbannen van de bestaande armoede van data kan de Post-2015 Development Goals armoedereductie beter monitoren en bevorderen in de toekomst.

## List of abbreviations

GDP	Gross Domestic Product
GNI	Gross National Income
MDGs	Millennium Development Goals
MDG1	Goal 1 of the Millennium Development Goals: eradicating extreme poverty and hunger
MDG1.A	Target 1 of the first Goal of the Millennium Development Goals: Halve, between 1990 and 2015, the proportion of people whose income is less than 1,25 dollar a day
MPI	Multidimensional Poverty Index
NCDO	National Committee for international Cooperation and Sustainable Development
NGOs	Non-governmental Organizations
ODA	Official Development Assistance
PPP	Purchasing Power Parity
UN	United Nations
UNDP	United Nations Development Programme
US	United States

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## 1. Introduction

As a group of 90 economists, academics and development experts, we are writing to ask that you put inequality at the heart of any potential post-2015 framework discussed during the meeting of the High Level Panel in Bali. In order to eradicate extreme poverty in all its dimensions by 2030, we must find a way to reduce vast and increasing inequalities both within and between countries (Wilkinson, Pickett, Sumner, Milanovic, Jolly et. al., 2013).

This letter, directed at the High Level Panel on Eminent Persons on the Post-2015 Millennium Development Goal Agenda (2013), illustrates the academic and political debate surrounding the Millennium Development Goals (MDGs). In 2000, world leaders committed to this framework of international goals, that need to be met by 2015. According to the United Nations (2013) this has led to the most effective anti-poverty push in history. However, approximately 1.2 billion people are still living in extreme poverty and the recent economic crisis has exacerbated worldwide inequalities (United Nations, 2013, p. 7). Although the United Nations (UN) reports that the targets for the first Millennium Development Goal – eradicate extreme poverty and hunger - have been met, still a lot has to be done.

It is in this context that the letter of Pickett et. al. (2013) is relevant, since it addresses one of the most pressing issues in contemporary development: inequality. Research shows that inequality is a barrier to sustainable growth and inclusive development. Inequalities moreover threaten the eradication of extreme poverty. This group of 90 prominent experts, academics and policy makers therefore calls for the need to include the reduction of inequalities in the post-2015 MDG framework. This recommendation is part of a broader academic and political debate on the Millennium Development Goal Agenda. Although the progress made is seen as a huge success, the framework has also been criticized. It can be questioned to what extent the current targets and indicators have adequately measured poverty and development (Nayyar, 2013) and therefore resulted in the right conclusions and policies. Furthermore the results of the MDGs in the field of poverty reduction have proven to be very uneven (UN, 2013). Therefore the societal need to address these academic concerns is high, since a new Post-2015 Development Goal framework will be established next year.

This research will aim to integrate the existing critiques, leading to an alternative conceptualization and measurement of poverty based on inclusive development. By comparing the development results based on this conceptualization and measurement with the existing MDG1, more insight can be provided in the possible impact of a new, Post-2015 Development Goal to effectively eradicate poverty. This can be summarized in the following research question, that is mainly focussed on the first target of the first MDG on eradicating extreme poverty (MDG1.A):

How can existing critiques on the Millennium Development Goals lead to an alternative conceptualization, measurement and result analysis of the first MDG on eradicating extreme poverty, based on inclusive development?

Answering this research question requires an interdisciplinary approach and results in recommendations relevant in the context of the Post-2015 Development Agenda. First the theoretical framework will provide theoretical perspectives on the central concepts of development, poverty, inequality and their interrelation and measurement. This will be followed by a critical analysis of the Millennium Development Goals, influenced by insights of for example Vandemoortele (2011) and Fukuda-Parr (2008). Subsequently a mixed methods strategy will be employed to create a sound understanding of the research topic and answer the research question posed. For this purpose, qualitative semi-structured interviews will provide the interdisciplinary foundation of a secondary data analysis of poverty reduction and MDG results. This will ultimately result in an answer on the main research question, leading to a final conclusion and discussion on the matter.

#### *Problem definition and research questions*

The research problem is defined in close relation to the foregoing description of the research topic. Although many scholars have written critiques and recommendations that are relevant to the future MDG1, no unequivocal perspective exists on this matter.<sup>1</sup> Moreover, it is not clear what the consequences are of proposed alternatives when compared to the results of the existing MDG1, which have been uneven. This research aims to provide a more thorough integration of perspectives, by providing an comprehensive overview of alternative measurement options. By comparing the outcomes of the current MDG1.A and the alternative measurement options, a contribution can be made to both the academic and the political debate about the Post-2015 Development Agenda. This process can be summarized in the following research questions:<sup>2</sup>

1. How are development and poverty conceptualized as part of the current Millennium Development Goal framework?
2. What are the existing critiques on the current Millennium Development Goals and MDG 1.A (the eradication of extreme poverty) in particular, when taking into account inequalities from the perspective of inclusive development?
3. Based on the existing critiques, what alternative conceptualization and measures could be employed to examine the eradication of extreme poverty adequately?
4. How do the results of the current first Millennium Development Goal compare to the results based on this alternative measurement and analysis of the MDG1.A?

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<sup>1</sup> This statement is supported by findings that are presented in chapters 2 (p. 5) and 3 (p. 14).

<sup>2</sup> These research questions have been altered during the research process. Initially, this research aimed to provide a complete alternative operationalization of MDG1, including targets and indicators. However, this goal appeared too ambitious, especially when considering the limited data availability and the complexity and scale of the research topic. Therefore, the goal of a complete alternative operationalization has been changed focus on the conceptualization and measurement of poverty based on inclusive development, as part of the MDGs.

5. What are the contributions and implications of the foregoing comparison for the international political debate on the post-2015 Development Goals?

These questions will guide the research process to ultimately answer the main research question posed:

How can existing critiques on the Millennium Development Goals lead to an alternative conceptualization, measurement and result analysis of the first MDG on eradicating extreme poverty, based on inclusive development?

Through answering these research questions, this research aims to provide recommendations relevant in the context of the political debate about Post-2015 Development Agenda. Furthermore the main goal of this research will be to create a sound understanding of these matters by the employment of an interdisciplinary approach, of which the results will be relevant to both society and science. This first requires the definition of the most important research concepts in relation to the MDGs and the research question: development, poverty and inequality. Their conceptualization and interrelation will be further explored in the theoretical framework, resulting in a critical analysis of the existing MDGs. This has provided the theoretical foundation for the mixed methods strategy that guides this research, ultimately leading to an answer on these research questions.

### *Relevance*

The Millennium Development Goals are seen as an important watershed in development history (Nayyar, 2013). These goals have had worldwide influence on both international and national development policy and therefore on society itself. This current MDG framework will be followed by a Post-2015 Millennium Development Agenda. Therefore this framework will remain influential in the future as well. At the time of writing, in June 2014, the contents of this future framework are debated upon both within and outside the United Nations. At the same time, at least 1.2 billion people still live in extreme poverty (United Nations, 2013, p. 7). This illustrates the continuing social and political relevance of the MDG framework.

Although the MDGs can be seen as a big success in eradicating poverty (United Nations, 2013), the framework has also been criticized by leading academics. A large body of literature exists on the MDGs and its goals, indicators and related recommendations to the future framework. Nevertheless, an integrated, comprehensive account of these critiques is lacking within the field of international development studies. In addition these critiques are often theoretical by nature and lack a quantitative examination of alternatives and consequences. Exactly this literature gap will be covered by this research, that will be therefore highly relevant from an academic perspective as well. In addition, this research aims to contribute to the political debate on the post-2015 MDG Agenda,

thereby ultimately connecting its academic and social relevance. For this purpose, an interdisciplinary approach will be employed.

### *Interdisciplinarity*

An interdisciplinary approach is needed to answer the research questions, since the objects of these questions itself are multidimensional. The description of poverty as a ‘wicked problem’ (Rutting, De Roo, Blad et al., 2014, p. 26) illustrates the complex nature of the problem well. These kinds of concepts require multiple and preferably interdisciplinary perspectives to be fully understood. The inherent complexity of society and the need to solve such a wicked problem – through for instance the Millennium Development Goals – add to the need for an interdisciplinary approach. Therefore this research topic and the foregoing problem definition will require the integration of knowledge of different disciplines.

For this purpose, the field of international development studies has been most important. This in itself can be seen as an interdisciplinary foundation in which insights from e.g. sociology, international relations, economics, anthropology and geography are integrated. Besides, insights from political science have been used to analyse the (international) political dimension of this issue. These disciplines have been integrated in the theoretical framework, where the concepts of development, poverty and inequality are closely connected. This integration of theoretical approaches to development has been applied to the MDGs to analyse the research topic from an interdisciplinary perspective.

Integration techniques have been applied in all phases of the research process, resulting in an interdisciplinary perspective on the issue of poverty and the Millennium Development Goals. The research strategy is characterized by a mixed methods strategy in which qualitative and quantitative insights will be integrated. The research methods themselves strongly contribute to an interdisciplinary approach. The purposive sampling technique for the semi-structured interviews has led to participants of a wide array of different disciplines, of which the insights are integrated in the description of results.<sup>3</sup> The additional quantitative methodology is mainly based on statistical analyses used in the social sciences as described by Field (2009), but has been enriched by the use of an econometrical analysis technique<sup>4</sup> to answer the research questions. Altogether, this has created an interdisciplinary perspective to ultimately answer the research questions posed.

### *Chapter outline*

The foregoing problem definition leads to a mixed methods strategy to answer the research questions posed. This strategy, along with a description of the research methods and analysis used, is described in the next chapter (p. 1). This is followed by the theoretical framework in which the interrelated issues of development, poverty and inequality are examined, leading up to a critical analysis of the

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<sup>3</sup> For the interdisciplinary integration of interview results, see chapter 5 (p. 19).

<sup>4</sup> These methodological considerations are elaborated on in chapter 1 (p. 1) and 6 (p. 29).

Millennium Development Goals and the future Post-2015 Agenda (chapter 2, p. 5 and chapter 3, p. 14). These topics have been addressed during semi-structured interviews, of which the results are described in chapter 5 (p. 19). Since these results facilitate the quantitative analysis, chapter 6 (p. 29) will serve as an integration of both research methods in which the hypotheses, data-preparation and quantitative analysis will be set out. The results of the following quantitative secondary data-analysis are described in chapter 7 (p. 33). These results together will lead to a final conclusion and discussion of this research.

## **1. Methodology**

### **1.1 Research strategy**

In order to answer the research questions posed, a mixed methods strategy will be employed. Both qualitative and quantitative methods are used to provide a comprehensive view on the MDGs.

The need for a mixed methods strategy directly follows from the problem description and research questions. The qualitative strategy will be used to answer the first two research questions on the conceptualization and critique on poverty as part of the MDGs. By employing a facilitating approach (Hammersley, 1996, cited in Bryman, 2008: 607), the third question on MDG measurement will provide the connection between both research methods. The fourth question on the MDG results will be answered through the use of quantitative methods based on the qualitative foundation provided. Furthermore, the quantitative analysis will enable testing the hypotheses rising from the interview results. The last research question on the relevance of the findings to the debate on the Post-2015 Development Goals will provide a qualitative context to which the quantitative findings are relevant.

This way, the strengths of both research methods are combined. The qualitative methodology will provide insight in different disciplinary perspectives, the meaning of concepts as development and poverty and the context of both the current and future Development Goals. The quantitative methodology will be used to assess the results of the MDGs by measuring results and to identify relations between the different concepts used. This will lead to a sound understanding of the research topic and thus an answer to the main research question, that could not have been achieved by using only qualitative or quantitative research methods.

As a consequence of this mixed methods strategy, epistemological concerns include aspects of both interpretivist and positivist thinking as described by Bryman (2008). Both the understanding and the objective measurement of poverty are key to gain the knowledge necessary to answer the research questions. Furthermore, the nature of social entities – ontology – is approached from a constructionist stance, since the meaning of poverty and the phenomenon itself is continually reconstructed and accomplished by social actors.<sup>5</sup> Both qualitative and quantitative research strategies will be strongly integrated to reach complete answers to the research questions.

### **1.2 Research design**

The unique character of this research is reflected by a combination of several research designs. The qualitative component is strongly influenced by evaluation research. To answer the research questions, the MDG policy and its results have been thoroughly evaluated by the interview participants. Afterwards, a cross-sectional design has provided the framework in which statistics related to MDG1 have been analysed. The quantitative data of many cases (countries) has been used in connection to the variables that are used as MDG targets. Since the results are evaluated from the starting point of

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<sup>5</sup> This statement is confirmed by theories on development and poverty as described in chapter 2 (p. 5).

the MDGs onwards, this research also shares characteristics of a longitudinal design as described by Bryman (2008). The MDG policy and its results will thus be evaluated through a combination of the previously described designs. This will lead to an in-depth understanding of the issue and its context (Greene, 2000, cited by Bryman, 2008, p. 42).

### 1.3 Research methods

#### 1.3.1 *Qualitative semi-structured interviewing: data collection*

In order to gather data to answer the first, second, third and fifth research questions, semi-structured interviews have been used as a research method. The interviews have been held with different experts and stakeholders related to the MDGs and MDG1 in particular. Purposive sampling has been employed as a strategy to select a sample of policy makers and diplomats (from foreign affairs), academics from different disciplines and employees of non-governmental organizations (NGOs) that contribute to the debate surrounding the MDGs in various ways. Additionally, snowball sampling has been used to reach more contacts. An overview of the resulting sample can be found in appendix 4 (p. 58) in the form of a list of interview participants. The wide variety of perspective has ensured an interdisciplinary approach through an integration of these insights, thus resulting in a comprehensive understanding of the research topic.

Based on the theoretical framework and operationalization, an interview guide has been developed, which is provided as appendix 5 (p. 59). This contains a list of questions and topics to be covered (Bryman, 2008), that have been addressed within an hourglass-like model. These questions have in part be specified according to the professional status of the different participants. The interview process is flexible and has been characterized by a great interest in the interviewee's point of view. The data rising from these interviews has been used to extend the theoretical framework, by including additional theories that help to interpret the interviews and thus to answer the research questions. These interviews therefore comprise an essential component within the iterative process of this research.

#### 1.3.2: *Qualitative semi-structured interviewing: data analysis*

In this research, data collection and analysis are very closely connected, resulting in grounded theory as described by Bryman (2008, p. 541). This is facilitated by the transcription and analysis of the interviews by using ATLAS.ti. Initial coding has been used to present impressions very closely related to the data. Through selective coding (Charmaz, 2006, cited by Bryman, 2008, p. 543) codes have been grouped in concepts and themes ('code families') that transcend the different participants and their disciplinary perspectives. The coding overview resulting from all interviews is provided as appendix 6 (p. 61).<sup>6</sup>

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<sup>6</sup> Upon request, the original coded documents are available for more insight in the coding process and the quotations each of the codes has been linked to.

The analysis of these interviews resulted in new insights, that have been applied during subsequent interviews. These different perspectives have been integrated as part of an interdisciplinary approach the complex topic of poverty requires. The results will provide the foundation to hypotheses on MDG1 and the quantitative analysis that will be employed afterwards.

### *1.3.3 Quantitative secondary data analysis*

The second research method consists of a quantitative analysis of secondary data. For this purpose, the World Bank DataBank<sup>7</sup> is used, of which the data is mainly collected through household surveys. The precise strategy of analysis is dependent on the outcome of the qualitative interviews and the answer on the second and third research questions (concerning critique and measurement), since that has determined the hypotheses and methods of analysis. This facilitation of the quantitative research method by the qualitative interviews is therefore further elaborated on in a separate chapter (6, p. 29) after the description of the interview results. Also sampling, data-preparation and analysis methods will be discussed in that chapter, since these procedures have been influenced by the hypotheses resulting from the interviews. By this quantitative data-analysis the results of the MDGs and poverty eradication are explored along with the effects of the choice of indicators to measure these phenomena.

### *1.3.4 Crowdfindings approach*

As part of the honours course ‘Crowdfindings’, an additional experimental method has been employed as a part of this research. Through an online tool at <http://dpc.uba.uva.nl/BeyondtheMDGs/>, feedback and discussion has been facilitated as a bridge between the described qualitative and quantitative research methods. The ‘crowd’ consists of both interview participants and other academics and professionals with expertise on the topic of research that have all been invited by e-mail. Both (internal) reliability and (internal and measurement) validity has been improved by presenting the hypotheses and conclusions to the crowd. This can be seen as a new form of respondent validation as described by Bryman (2008, p. 377), through which it is confirmed that the findings correspond with the perspectives of the research participants. Through continued engagement of the participants, the potential relevance and impact of this research has furthermore been increased.

This innovative method should be seen as an addition to the interviews and data-analysis, that in itself constitute sufficient ways to find answers to the research questions. Although the success of this method has been uncertain throughout the research process, it has provided a valuable opportunity to strengthen the iterative process and the reliability and validity of the resulting grounded theory and research outcomes.

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<sup>7</sup> This DataBank can be accessed via <http://databank.worldbank.org/>. The indicators used mainly belong to the World Bank World Development Indicators and Millennium Development Goals databases, that can be accessed via <http://databank.worldbank.org/data/databases.aspx>.

#### 1.4 Ethical Considerations

Although the research topic was not experienced as particularly sensitive by the interview participants, ethical considerations were taken into account to ensure adequate procedures during the research process. The participants were informed about the purpose of this research as soon as they received the interview invitation. Upon their request, an overview of the interview guide was provided beforehand.<sup>8</sup> The purpose of the interview was further elaborated on at the start of the interview. The recording of the interview only took place after explicit consent of the participants. During the interview, a balance was sought between critical questions and minimizing any interview bias. At the end of the interview, it was again explained for what purpose the data would be used. Any possible questions or worries were addressed in the best way possible, for instance by e-mailing the specific quotes that were used in the first concept of this research.

The online experiment that is part of this research, required additional ethical considerations. The information that was shared online was carefully selected. Only general ideas and conclusions have been made public, with the explicit consent of each of the participants. No quotes or primary data are shared online. This method has provided a valuable opportunity to check research interpretations, and to correct or complete any information based on the insights and discussion of the participants. This is of special importance considering the research topic is of direct relevance to the profession of some of the participants. Therefore it has been essential to carefully interpret the data and to represent their views as close as possible. These considerations ensured the reliability and validity of the research results.

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<sup>8</sup> For this purpose, the interview guide was translated to Dutch. Some practical information that was only relevant to the interviewer, was left out in these versions.

## **2. The interrelated issues of development, poverty and inequality in the MDGs**

Closely related to the problem definition and the research questions, a theoretical background will be provided to the research topic. First of all, the (current) Millennium Development Goal framework and a brief overview of its results will be introduced. Since this concerns the issue of development, this concept will be explained more extensively. Also measurement options – that are relevant to measuring progress related to the MDGs – will be explored and evaluated. Since MDG1 and poverty will be the primary focus of this research, the conceptualization and possible measurement of this concept will be described extensively. Following from the conceptualization of poverty is the relevance of inequality, of which again the conceptualization and measurement possibilities will be addressed. In the following chapter (3, p. 14), all these theoretical insights are applied to the current Millennium Development Goals and the possibilities for the post-2015 MDG framework, resulting in a critical evaluation of these matters.

### **2.1 The Millennium Development Goals: an introduction**

The Millennium Development Goals are the biggest development goal-oriented program in history (Greig, Hulme & Turner, 2007). World leaders committed to this programme at the United Nations' Millennium Summit in September 2000, in order to respond to the key challenges for the new millennium. The United Nations Millennium Project<sup>9</sup> has called the Millennium Development Goals 'the most broadly supported, comprehensive and specific poverty reduction targets the world has ever established' (2005, cited by Greig, Hulme & Turner, 2007). This statement can be illustrated by an overview of all the Millennium Development Goals, that is provided as appendix 1 (p. 52). These goals include the increase of participation in primary education, the promotion of gender equality, the reduction of child mortality, the improvement of maternal health, the reduction of diseases, the improvement of environmental sustainability, the establishment of a global partnership for development and, perhaps most important, the eradication of extreme poverty and hunger. The goal last mentioned is actually the first MDG, reflecting its importance and impact in relation to the other goals and development in general. This goal is comprised of several targets and indicators, that are summarized in table 1 on the following page. All goals, targets and indicators are universal and apply to all countries.

The results of the MDG framework are yearly described in the United Nations Millennium Development Goals Report. In the most recent report, poverty reduction is described as a success:

The world reached the poverty reduction target five years ahead of schedule. In developing regions, the proportion of people living on less than \$1.25 a day fell from 47 per cent in 1990

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<sup>9</sup> Secretary General Kofi Annan installed the United Nations Millennium Project as an independent advisory board to determine the best strategies for achieving the MDGs. The Project is headed by Sachs (Greig, Hulme & Turner, 2007).

to 22 per cent in 2010. About 700 million fewer people lived in conditions of extreme poverty in 2010 than in 1990 (2013, United Nations).

Despite this progress, 1.2 billion people still live in poverty. This poverty is mainly clustered in Africa and Southern Asia, where respectively 48% and 30% of the population were still living in extreme poverty by 2010 (United Nations, 2013). In Sub-Saharan Africa, the amount of people living in poverty has even been rising over the past few years. Besides, the recent financial crisis has widened global job gaps (ibid.). The UN furthermore acknowledges that measurement issues continue to pose great challenges to effective policymaking and poverty reduction; current measurement indicators are summarized in table 1.

Table 1: Millennium Development Goal 1 (United Nations Statistics Division, 2008)<sup>10</sup>

<b>Goal 1: Eradicate extreme poverty and hunger</b>	
Target 1.A: Halve, between 1990 and 2015, the proportion of people whose income is less than 1,25 dollar a day <sup>11</sup>	1.1 Proportion of population below \$1,25 (PPP) per day
	1.2 Poverty gap ratio
	1.3 Share of poorest quintile in national consumption
Target 1.B: Achieve full and productive employment and decent work for all, including women and young people	1.4 Growth rate of GDP per person employed
	1.5 Employment-to-population ratio
	1.6 Proportion of employed people living below \$1 (PPP) per day
	1.7 Proportion of own-account and contributing family workers in total employment
Target 1.C: Halve, between 1990 and 2015, the proportion of people who suffer from hunger	1.8 Prevalence of underweight children under-five years of age
	1.9 Proportion of population below minimum level of dietary energy consumption

The UN history of goal setting shows that these kinds of targets can nevertheless be successful for generating awareness and political commitment to development objectives (Jolly, 2010). Goals have served as guidelines for coordinated action and have strongly influenced development discourse (Manning, 2009 cited by Sumner & Tiwari, 2009). However, the MDG framework has also been strongly criticized. For instance, it has been argued that the MDGs are too simplistic and focus too much on averages (Nayyar, 2013). These issues will be discussed more extensively in chapter 3 (p. 14). However, in order to analyse the Millennium Development Goals and the first goal in specific, the meaning of development and poverty itself has to be further elaborated upon first.

## 2.2 The issue of development

### 2.2.1 *The conceptualization of development*

The broad term ‘development’ has many definitions. In its most general sense, it can be defined as a process of ‘good change’ (McGillivray, 2012). Historically, development has often been described as

<sup>10</sup> This research is primarily focused on target 1.A of MDG1, although this target is seen in the context of the framework as a whole.

<sup>11</sup> Originally, this target was set at the poverty line of 1 dollar a day in 2000. This measure for extreme poverty was raised to 1,25 dollar a day in 2005; the target has been consequently altered to take into account this new poverty line (Greig, Hulme and Turner, 2007).

a process of (economic) modernization. Countries are expected to move through a transition from a traditional to a modern society, for which Rostow (1960) identified different stages. For the important 'take-off' phase, investments and quickly expanding industries are needed. This economic growth is expected to eventually 'trickle-down' to the poor. This is part of the typically modernistic perspective in which development is regarded as a homogenous process towards one final stage: a mass consumption society.

As a response on growing inequalities, this theory of modernization has been criticized from a dependency perspective. From this view, the incorporation of poor countries into the global economic system is seen to be causing their structural underdevelopment (McKay, 2012). This impoverishment of the periphery thus has its roots in the development of the powerful core. The economic relationships between the core and the periphery sustain the underdevelopment of poor countries, caused by unequal terms of trade. The periphery supplies primary goods at low costs, while developed countries make high profits on industrialized goods. This results in the sustained underdevelopment of the periphery as a consequence of international economic relations. Dependency theorists therefore argue that 'development and underdevelopment are the opposite sides of the same coin' (Frank, 1971, cited by McGillivray, 2012, p. 32).

Both of these grand development theories can be applied to the MDG framework. In terms of modernization, development has been visualised as a 'ladder' by the UN Millennium Project (2005, cited by Greig, Hulme & Turner, 2007). It furthermore saw raising poor countries onto the 'first rung' as an important purpose of the MDGs. Exogenous assistance of other countries in the form of foreign investments or development assistance is crucial in this process, since it will enable the diffusion of modernity. Furthermore, the ambition to reach Rostow's take-off phase is directly mentioned in e.g. the Dutch MDG strategy (Ministry of Foreign Affairs, 2007, p. 12).

On the other hand, elements of dependency theory are also present in the MDG framework. This becomes most apparent from the discussion of historical structural constraints. It is acknowledged that relations between rich and poor countries have been hindering development, and that some development problems have exogenous origins (Greig, Hulme & Turner, 2007). However, isolationist strategies to limit economic relationships with other countries are rejected, as well as the claim that exploitation is inherent to development. The United Nations Development Programme (UNDP) furthermore acknowledges the importance of dealing with income inequalities within and between countries to reduce poverty effectively.

Another development conception that has influenced the UNDP, is the capability approach of Sen (1990). Sen views development as the expansion of capabilities, which can be seen as the freedom or the possibility to function in a variety of ways. This is a multidimensional conceptualization of development and wellbeing, including considerations of for instance health, safety, education and food. The capability approach can thus be seen as a comprehensive approach to development. From this perspective, income is merely one of the means to function in all of these

ways. Although the MDGs as a whole seem to reflect such a human development approach, Greig, Hulme and Turner (2007) state its central means of measurement, namely the international poverty line, can be seen as an important ‘foe’ from this perspective. This issue of measurement will be further elaborated upon.

### 2.2.2 *Measuring development*

Many development statistics concern the economy, of which the Gross Domestic Product (GDP) and the Gross National Income (GNI) are the most well-known. The GDP refers to the value of all production within a country over a year (Greig, Hulme and Turner, 2007). By adding income from abroad, the GNI is measured. In order to compare development between countries, GDP and GNI are divided by the population and converted to US dollars. Furthermore, it is corrected using Purchasing Power Parity (PPP) in order to take into account price differences and thus, purchasing power (McGillivray, 2012). However, such figures still do not provide any information about the inequality within nations.

In the book *Mismeasuring our Lives: Why GDP doesn't add up* (2010), the need for alternatives to the GDP measure is explored. Some relevant recommendations from Stiglitz, Sen and Fitoussi concern the importance of income and consumption instead of production. They stress the importance of the distribution of these phenomenon, which should be reflected in indicators. Their multi-dimensional conceptualization of wellbeing results in their proposal to include measures of all sort of functionings inspired by Sen's capability approach. An example of such a wider range of measures is the Human Development Index that measures different social and political aspects of development, inspired by Sen's capability approach (Greig, Hulme & Turner, 2007). Both the current and future MDGs can be seen as an example of such a combination of different indicators.

Concluding, it could be stated that GDP as a measure of income is not wrong as such, but has been wrongly used as a measure of development. This can result in situations in which ‘most people may perceive themselves as being worse off, even though average GDP is increasing (...) because they are indeed worse off’ (Stiglitz, Sen & Fitoussi, cited by Sarkozy, 2010). This of course has important implications for people living in poverty.

## 2.3 The issue of poverty

### 2.3.1 *The nature of poverty*

According to Rutting, De Roo, Blad, Post en De Greef (2014), poverty can be seen as a ‘wicked problem’. Such complex problems require the interdisciplinary integration of insights from multiple perspectives to fully understand the issue. The characteristics of such problems have been originally described by Rittel and Weber (1973) and apply to the issue of poverty very well. The first described characteristic concerns the lack of a definitive definition of the issue, as has indeed already been explained in the case of poverty. The formulation of this concept in itself part of the problem. Therefore, no definitive explanation nor solution will exist. Every implemented solution is however

consequential and will necessarily alter the problem of poverty. This highlights the importance and influence of policy and therefore of the MDGs.

There are many ways to look at the issue of poverty. A first distinction can be made between objective and subjective poverty. An objective definition is specified by researchers and concern specific measures (Greig, Hulme and Turner, 2007). Subjective definitions are made by the (poor) people themselves. Although the latter has several advantages, such as personal knowledge and experience, subjective poverty is much more difficult to measure and compare over time and space. Therefore, it is far less suitable to be used in the context of the MDGs, which indeed is dependent on objective measures.

Furthermore, a distinction can be made between a narrow and a broad conception (Lister, 2004, cited by Greig, Hulme and Turner, 2007). A narrow approach is easily comprehensible and measurable. The most well-known example of such a narrow conceptualization is the '1,25 dollar per day' poverty line, grounded on a neo-classical economists' conception of poverty as a one-dimensional shortfall of income. This measure of per capita income is actually one of the targets and indicators for the first MDG and therefore very influential. However, it has been criticized for being overly simplistic. In contrast, broad conceptions of poverty focus on a more diverse set of deprivations that can be found in every dimension of life. Such broad conceptions of poverty are directly related to broad conceptions of development, as the earlier described capability approach. Aspects of such a broad poverty conception as child mortality and a lack of education are translated in other MDGs, respectively two and four. Although the MDG's as a whole cover a wide set of issues and measures, the overarching concept of poverty is narrowly defined based on income (Sumner, 2007).

Another distinction can be made between absolute and relative poverty. Absolute poverty exists when persons are unable to meet their minimum needs (Greig, Hulme and Turner, 2007). The earlier described poverty line is an example of such an absolute measure. However, such conceptions of poverty can be criticized based on the assumption of homogeneity. Not every person will have the same needs and will therefore not need the same amount of income to fulfil these needs. Especially when populations are in reality characterized by huge internal differences and are thus heterogeneous, such a measure can be problematic.<sup>12</sup> Moreover, since human being are social actors, it can be argued that relative poverty is more important than absolute poverty. A possible solution to integrate the concepts of absolute and relative poverty is offered by Ravallion (2013) through the concept of 'weakly relative poverty'. This concept entails a minimum of absolute needs above which a relative measure of poverty is employed. However, this relatively new measure is not (yet) included in well-known databanks, for instance from the World Bank. These different types of poverty conceptualizations have important measurement implications that will be discussed more extensively.

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<sup>12</sup> This issue of inequality will be further elaborated upon in chapter 2.4, p. 11.

### 2.3.2 *Measuring poverty*

Following Sumner (2007), a good poverty measure has to meet the following criteria. It must be user-friendly, easy and cheap to collect but hard to manipulate. Furthermore, it has to be based on an underlying conception of poverty and it must be able to directly measure the indicator. Vandemoortele (2011) adds that a balance must be found between simplicity and complexity, which is challenging. The resulting indicators will always be the outcome of lengthy socio-political processes. Since ‘the measurement and assessment of poverty have never been so high on the international agenda’ (Sumner, 2007, p. 11), different measurement options and its implications need to be considered.

Different poverty measures rise from the various poverty conceptions described. By the earlier mentioned 1,25 dollar a day poverty line, the incidence of poverty can be measured. Alternatively, developing countries often have set national poverty lines. These are usually based on the food poverty method (Greig, Hulme and Turner, 2007, p. 17). In such cases the poverty line indicates the insufficiency of income to meet primary nutritional needs. However, this measure still does not provide any information about the depth or severity of poverty (Greig, Hulme and Turner, 2007). This can be measured by calculating the poverty gap, which is expressed as the average distance from the poverty line as a proportion of this same line. This measure is one of the indicators for the first target of MDG1.<sup>13</sup> (Greig, Hulme and Turner, 2007, p. 21). These measures are part of the Foster, Greer and Thorbecke (FGT) measures of poverty and altogether assess both absolute and relative poverty.<sup>14</sup> Still, the poverty headcount ratio nor the poverty gap do not assess the distribution of poverty (Alkire en Foster, 2007).

Although both development and poverty have been identified as multidimensional concepts, the foregoing examples of economic measures still predominate (Sumner, 2007). Again the tension between the multidimensional MDGs as a whole and the economic conceptualization of poverty in the first goal, stands out. Recently an alternative has been proposed by Alkire and Foster (2011), who have developed methodologies for multidimensional poverty measurement. This has enabled the aggregate measurement of multiple dimensions of choice, for instance through the Multidimensional Poverty Index or MPI in short (Alkire & Santos, 2010). Through including the dimensions of the MDGs in such an index in the future, progress on multiple dimensions could be monitored more effectively. However, little data is yet available for this purpose, which limits possibilities for measurement, international comparison and the analysis of trends in poverty.

### 2.3.3 *Trends in poverty*

Both the success and ongoing challenges concerning poverty reduction have been described before in relation to MDG1.<sup>15</sup> These trends have also been analysed in academic research, where the

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<sup>13</sup> See figure 1 (p. for an account of the targets and indicators of MDG1.

<sup>14</sup> For more information on the statistical calculation of these indicators, see Foster, J., Greer, J. and Thorbecke, E. 1984. ‘A Class of Decomposable Poverty Measures’, *Econometrica*, 52(3): 761–766.

<sup>15</sup> See chapter 2.1 (p.5) and chapter 3 (p. 14) for a full description of results and challenges.

measurement of choice is of great influence on the results and may even lead to contradictory conclusions about poverty (Ravaillion, 2002). This illustrates the relevance of the foregoing examination of poverty measurements.

Although in most parts of the world poverty is indeed decreasing, the least developed countries as a group saw poverty only reduced from 44% in 1994 to 36% in 2005 (Gore, 2010). Furthermore, Kanbur and Sumner (2012) describe the trend of a 'new geography of global poverty'. They use this term to depict the situation in which most of the world's poor living in middle income countries instead of least income countries, as used to be the case. This reclassification has generated a new bottom billion, of which the most do not live in the poorest countries. Yet international development policy is often mainly based on the national per capita income. Kanbur and Sumner rightly question the consequences and effectiveness of such strategies and support development assistance on a country specific basis.

This new geography of global poverty has other important consequences. While the World Bank predicts that in 2030, extreme poverty can be reduced to 3%, Bluhm, De Crombrughe and Szirmai (2014) question this calculation. Poverty eradication of the previous decade has been largely driven by growth in China and India, but these countries will contribute less to poverty eradication in the future. Bluhm, De Crombrughe and Szirmai employ an additional poverty line of 2 dollar a day to track continued progress and state that the pace of poverty reduction will slow down. They predict that around 8% of the world population will be living in extreme poverty by 2030 and 18% of the population live below the poverty rate of 1,25 dollar a day by that time (2014, p. 19). However, these are optimistic predictions that require addressing inequality in the future more effectively. Since this role of inequality in relation to poverty and development has also been stressed by Stiglitz, Sen and Fitoussi (2010), it is necessary to further explore the implications of this matter in relation to the MDGs.

## **2.4 The issue of inequality**

### *2.4.1 The theoretical relevance of inequality*

Within the field of development studies, inequality has been increasingly recognized as an issue that is closely related to poverty. More specific, it can be seen as a form of relative poverty and social exclusion (Clarke, 2012). Furthermore, structuralists (such as the earlier described dependency theorists) argue that poverty is mainly created and sustained through inequalities (Greig, Hulme and Turner, 2007). Power differentials between different groups as classes, ethnicities and genders create different dimensions of inequality that will reinforce each other. In this process, poverty is produced and reproduced as a consequence. These kinds of structuralist approaches stress the limits of the opportunities poor people have to improve their situation. Inequality and poverty are therefore two closely interacting concepts that can sustain the existing problems.

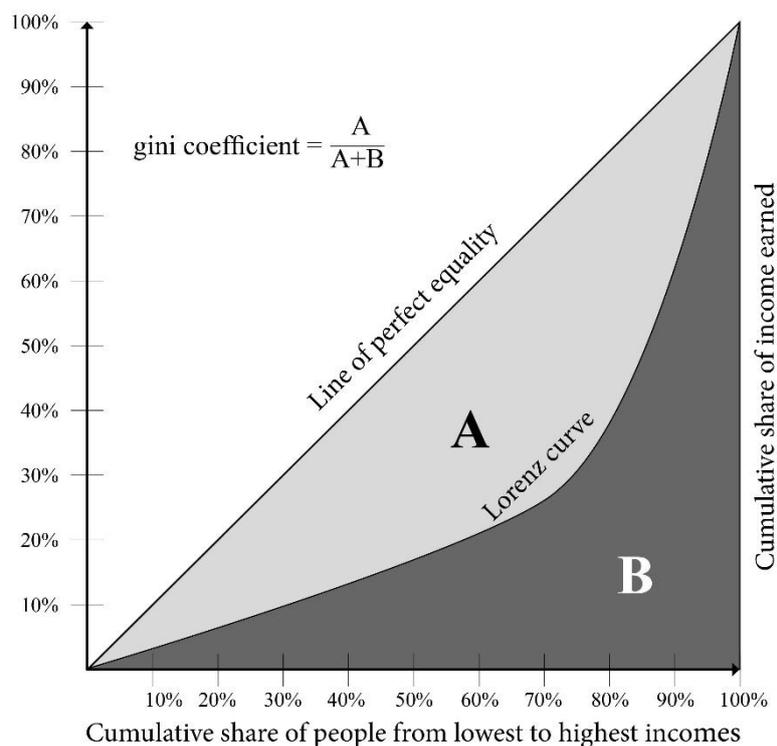
Nevertheless, gradations of inequality can also be seen as something positive. More individualistic approaches assume that in a perfect market, equality of opportunity exists. Therefore poverty is seen as a transitory phenomenon resulting from bad choices. Although this perspective seems rather radical, it has had international influence through the power of the United States (US) within the UN. This can be illustrated by an amendment of the US ambassador to the UN, who strived to remove the term poverty from the UN's review of the MDG's (Greig, Hulme and Turner, 2007).

The opposing argument states that inequality has been shown to have significant – and often negative – influence on personal wellbeing, since people evaluate their own position in relation to others (Giovannini, 2013). Through the process of globalization, the scope of these comparisons has grown (Milanovic, 2006), as has the awareness about global inequalities. Moreover, these income inequalities seem to matter based on ethical values and social justice (Springer, cited by Milanovic, 2006). Therefore trends in inequality matter to both poverty and development,.

#### 2.4.2 *Measuring trends in inequality*

Trends in inequality can be measured in several ways, of which the most common and important will be discussed shortly. Through size distributions, income data can be arranged from least to highest. After grouping deciles (10 per cent) or quintiles (20 per cent) together, ratios between different groups can be calculated (Clarke, 2012). In a Lorenze curve, this kind of information is showed visually by plotting the cumulative percentage of individuals against the cumulative amount of income. A perfect 45° line represents an equal income distribution. The scope of the bow indicates the amount of inequality.

Figure 1: Visual illustration of the Lorenz curve and Gini coefficient



Thirdly, the commonly used Gini coefficient is an estimation of the space between the perfect straight line and the line that represents the actual income distribution. The result will be a number between 0 and 1, in which the zero represents perfect income equality. Following Clarke (2012), this measure is particularly useful since changes over time can be tracked easily, which could be useful in relation to the MDGs.

Based on these measures, most people have experienced an increase in inequality within countries (Clarke, 2012). Global inequality seems to have fallen when countries are weighted by population size, due to the growth of China and India. It is striking that this global inequality is still higher than the highest amount of inequality found in any country (Milanovic, 2006), illustrating the relevance of this issue. Therefore, many of the critiques that the MDG framework is facing are based on the notion that inequality matters, and something has to be done to reduce these inequalities. Therefore this issue will be of central importance in the critical analysis of both the current framework and the future Post-2015 Development Goals.

### **3. The Post-2015 Development Agenda**

#### **3.1 Critical analysis of current MDGs and MDG1 in particular**

As has been shown, the MDGs have been a success in terms of influencing development discourse and generating political commitment. Its mobilizing power has resulted in concrete action on global, regional, national and local levels (Vandemoortele, 2011). However, the MDGs have also been criticized on several grounds. For instance on a conceptual level, where Vandemoortele questions the success of the attempted broad conceptualization. According to him, the framework now mainly reaffirms a modernistic conception of development. This is partly due to the fact that inequality is not adequately included. The donor-centric approach has instead led to a focus on money at the expense of other dimensions of development. This modernistic approach has however not been successful according to Vandemoortele, since growth is not actually trickling down. Instead, it could be stated that this focus on growth has led to an increase in inequalities (Gore, 2010). Furthermore, the MDG framework is said not to have significantly changed existing policies and not tackling the structural root causes of their sustained underdevelopment.

Furthermore, many MDG targets are currently defined in relative terms. This is also the case with the first MDG, that seeks to halve extreme poverty. Poor countries face the disadvantage that the proportion of poverty that is to be reduced, is inversely related to the initial level of poverty (Jahan, 2010). Nayyar (2013) furthermore stresses that the resulting ‘tyranny of averages’ might be misleading, since targets like ‘halving poverty’ do not take inequalities into account. The relevance of inequality has already been described extensively, but is currently underrepresented in the MDGs and the annual Millennium Development Goals Reports (United Nations, 2013).

Based on research by Fukuda-Parr (2008), Sumner and Tiwari (2009) question the extent to which the MDGs are merely taken up because countries are dependent on aid. The issue of local ownership is questionable in this regard. Fukuda-Parr (2010) has examined this issue by looking at national Poverty Reduction Strategy Papers (PRSPs) and donors, and the way they implement MDG priorities. He concludes that most countries focus on growth that is believed to trickle-down eventually. This modernistic approach, as well as the lack of pro-poor strategies, is criticized by Fukuda-Parr.

In conclusion, it can be stated that the MDG framework has proven inadequate (Gore, 2010). Nevertheless, such a statement would pass by the earlier described success. Moreover, the Post-2015 MDG Agenda is an important opportunity to improve the framework based on the foregoing evaluations.

#### **3.2 Implications and challenges for the Post-2015 Development Agenda**

In 2015, a new MDG Agenda will be established. This could be ‘more of the same’, by extending the goals and targets to 2020 or even 2025, as proposed by Sachs (2005). According to Gore (2010), this approach is not a viable option based on the foregoing criticism. Therefore, the Post-2015 Agenda is

seen as an opportunity to improve the framework and contribute to future development and poverty reduction. During this process, Sumner and Tiwari (2009) stress the importance of taking the changing global context into account. This is characterized by climate change, the financial crisis and growing uncertainties in general. In addition it is important to build on the ways in which the MDG framework has proven successful, for instance in creating a global development consensus (Gore, 2010).

One of the most common recommendations is that in this process, national ownership needs to be taken into account (Jahan, 2010). Vandemoortele (2011) stresses that the MDGs can have the most impact when they are tailored to fit national and local contexts. Consequently, the current approach to development indicators needs rethinking. Jahan stresses the importance to further disaggregate indicators and data based on inequalities, which can be based on for instance gender or regions. It is however important that the indicators are not ends in themselves; it are means to describe parts of the ultimate ends in detail (Fukuda-Parr, 2010). Rethinking the indicators could contribute to the effectiveness of the framework and the process of development itself (Jolly, 2010). An important part of this process is including the multidimensional character of poverty in the new poverty reduction goal (Giovannini, 2013).

One of the most specific proposals of all is to include a target considering the reduction of inequality both within and between countries. According to Fukuda-Parr (2010) this would be crucial in order to promote worldwide inclusive development. Also Gore (2010), Nayyar (2013), Jahan (2010), Vandemoortele (2011) and Giovannini (2013) stress the importance of tackling inequalities as a part of the MDG framework. This has also been recognized by the High Level Panel of Eminent Persons on the Post-2015 MDG Agenda (2013), a panel that has been installed by the UN to provide advice on this matter. The importance of inequality and inclusive development has also been stressed in the advice of the UN System Task Team on the Post-2015 UN Development Agenda (2012), according to which addressing inequality should be at the heart of the Post-2015 MDG Agenda. This recognition of the importance of inequality is promising; this however still needs to be translated to targets and indicators. If successful, this could contribute to the eradication of 'poverty of data around poverty' (Clarke, 2012, p. 239), and thereby contribute to the eradication of poverty itself.

### 3.3 The political process of the Post-2015 Development Agenda

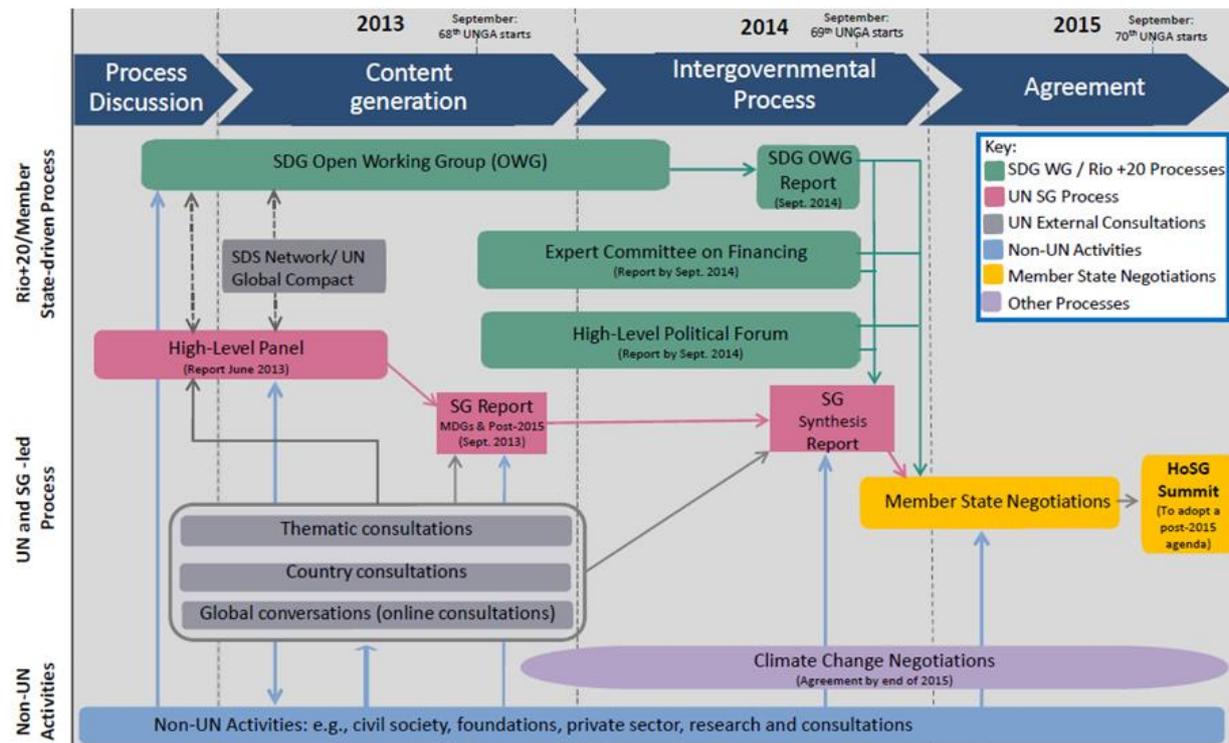
The foregoing critical analysis is very relevant to the ongoing political discussions about the Post-2015 Development Agenda. This new Agenda will be established at the end of 2015 and can be seen as a follow up to the current MDGs. The previously mentioned High-Level Panel has published an influential report (2013) that includes a specific proposal for future Development Goals. A summary of the goals and targets proposed is provided as appendix 2 (p. 54).<sup>16</sup> This report builds on the

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<sup>16</sup> This appendix has been used as a prompt during the semi-structured interviews.

outcome of the 2008 Rio+20 Conference in 2012, where it was agreed upon to develop Sustainable Development Goals. Sustainability also has a central role in the Open Working Group, the United Nations platform in which intergovernmental negotiations on the Post-2015 Agenda take place. The following figure summarizes the way all these different actors are related in the process leading up to the establishment of this new framework, in which sustainability and poverty eradication are intertwined.

Figure 2: Overview of the political post-2015 process and context (Development Policy Centre, 2014)



This figure illustrates the influence of financial and climate change negotiations, along with the influence of non-UN actors such as the private sector, civil society and research organizations. The most important phase is however constituted by the member state negotiations. In this context, the close connection of the issues of development, poverty and especially inequality is clearly acknowledged by Open Working Group (2014). Their most recent working document is included as an appendix as well (3, p. 56)<sup>17</sup>, which provides insight in the possible future goals and ongoing discussion on this matter. These proposals for a new poverty goal include the option to completely eradicate poverty, include national poverty lines and stress the importance of social protection (United Nations High Level Panel, 2013). Current proposals and discussion however mainly focus on targets and not so much on indicators; the precise operationalization of poverty as part of the Post-2015 Agenda is thus still in full development.

<sup>17</sup> This document has been used as a prompt during the semi-structured interviews with policy advisors from Foreign Affairs, whose work is closely related to the ongoing discussion in the Open Working Group.

#### 4. Operationalization

The foregoing theoretical framework has facilitated the operationalization of the most important concepts in relation to the existing MDG framework. This has resulted in a comprehensive overview of the operationalization of development, poverty and inequality, as provided in table 2. An important remark concerning this operationalization is that the main concept, poverty, has been defined as a ‘wicked problem’ of which the definition itself is part of the complexity of the issue. Since no definite explanation exist, multiple perspectives and measurement options are described. Additionally, the operationalization of the Millennium Development Goal framework itself can be found in appendix 1 (p. 52).

Table 2: Operationalization of core concepts

<b>Concept</b>	<b>Theories and Dimensions</b>	<b>Operative Definition and Important Aspects</b>	<b>Measurement</b>
Development	Capability Approach	Capabilities; freedom to function in a variety of ways	HDI, MPI
	Modernization	Economic growth; take-off (investments), trickle-down,	GDP/GNI (often corrected for PPP)
	Dependency	Autonomy; and structural (under)development trough economic relationships	No specific measurements, but often import/export ratio added
Poverty	Existence, depth and severity	Inability to meet basic needs	Foster, Greer and Thorbecke (FGT) measures of poverty, national poverty lines
	Objective vs. Subjective	Professional measurement vs. interpretation of the poor	quantitative measures of any kind vs. qualitative interpretations
	Narrow vs. Broad	Income vs. various aspects of (multidimensional) wellbeing	GNI per capita/1\$ poverty line vs. HDI
	Absolute vs. Relative	Limit of not meeting own needs vs. in relation to others	Absolute measurement income/needs (food poverty method/1\$ poverty line) vs. relative poverty lines or weakly relative poverty measurement
Inequality	Structuralist	relative poverty and social exclusion sustaining underdevelopment; Power differentials between different groups limiting opportunities	Lorenze curve, Gini, Palma (between people within countries, between people worldwide, within countries)
	Individualist	Inequality of outcomes (equality of opportunity); poverty = transitory phenomenon resulting from bad choices	

This operationalization has provided the foundation for the interview guide (appendix 5, p. 59), in which different concepts, theories and measurement options are addressed. The qualitative interviews themselves will provide more perspectives on the conceptualization of these concepts, thereby answering research questions 1 (on the conceptualization of poverty as part of the existing MDGs) and 3 (on alternative conceptualization and measurement). The results of the semi-structured interviews are provided in the following chapter.

## 5. Results

### 5.1 Results of qualitative semi-structured interviews

Between 15 April and 1 May 2014, a total of eight interviews were conducted with a length ranging from 40 to 80 minutes.<sup>18</sup> Additionally, the National Consultation on the Post-2015 Millennium Development Goals organized by the National Youth Council has been visited. Since the purposive sampling technique resulted in a great variety of perspectives, each of the participants will be shortly introduced to provide an informed interpretation of their viewpoint. A complete overview of the participants is provided as appendix 4 (p. 58).

Following the analysis as set out in chapter 1.3.2 (p. 2) codes have been grouped in concepts and themes ('code families') that transcend these different participants and their disciplinary perspectives; a coding overview is provided as appendix 6 (p. 61).<sup>19</sup> The results will be structured according to the research questions and main themes of this research. First, the origin and character of the Millennium Development Goals will be addressed. Subsequently, perspectives on poverty and inclusive development as part of the MDGs will be explored. This results in an answer on the first research question on the conceptualization of poverty as part of the MDGs, providing the foundation for a critical analysis of the MDGs and MDG1 in particular. As part of the second research question, measurement options and issues will be described that are closely related to the conceptualization of poverty, thereby answering the third research question. Lastly, perspective of the participants on the post-2015 debate will be described, informing an answer on the fifth research question.

### 5.1 The origin of the Millennium Development Goals

The first research question, on the origin and the characteristics of the current Millennium Development Goals has already been shortly touched upon in the theoretical framework. Additionally, the semi-structured interviews have provided valuable and diverse interpretations of this matter. Dr. Robert Jan Van der Veen, who is specialized in political philosophy, regards the origin of the Millennium Development Goals as follows:

“Current goals are the result of inside consultation between representatives of the Organisation for Economic Cooperation and Development), the United Nations and in particular the agencies that are most important there, the UNDP, the Worldbank and the International Monetary Fund” (Van der Veen).

Although Van der Veen acknowledges that these institutions have not come up with the complete

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<sup>18</sup> Of these interviews, 6 were in Dutch and 2 were in English. The original language is contained in the transcripts. For the purpose of this research, all data has been coded in English. Furthermore, any Dutch quotes that are used in this chapter will be translated to English. Seven interviews were conducted in person, with participants geographically scattered all across the Netherlands. Skype was used for an eighth interview with a participant from Brussels.

<sup>19</sup> Upon request, the original coded documents are available for more insight in the coding process and the quotations each of the codes has been linked to.

content of the Millennium Development Goals as a whole, they have certainly created the Millennium Development Goals as a coherent political framework. Indeed, the original Millennium Declaration (2000) does not provide the eight goals that are now well known. The aforementioned institutions are thus responsible for the form of the framework as we know it. Since the Millennium Declaration – that was based on a broad international consent – was used as the foundation of this framework, it was possible to build on the existing international consensus to successfully establish the Millennium Development Goals. According to Van der Veen: “This has nothing to do with democracy. (...) And thus the implications are, that if you want to establish Millennium Development Goals again in a democratic manner, this will result in great problems”.

In contrast, communication specialist Ronald Kampherbeek regards the Millennium Development Goals as a great compromise between all the parties involved. As a former employee of the National Commission of International Cooperation and Sustainable Development (NCDO) he states: “In the end, it [the Millennium Development Goals] have become one great compromise”. These differing interpretations illustrate the complexity of the issue and the relevance of their disciplinary background. Both of these are inextricably linked to the participants’ views on inclusive development and related poverty conceptualizations.

## 5.2 The conceptualization of poverty and inclusive development as part of the MDGs

All participants seem to agree that poverty is something multidimensional, although they do not all explicitly say so. Van der Veen rightly states the MDGs as a whole represent this multidimensional approach to poverty. While focussing on MDG1, it is therefore important to view this goal in the context of the framework as a whole. The different goals are thus seen as interrelated, something that is also stressed by Saskia Tjeerdsma, policy advisor on the Post-2015 MDG Agenda at the Dutch ministry of Foreign Affairs. This was furthermore confirmed during the National Consultation on the Post-2015 MDGs. In fact, the goals themselves – and thus, development - consist of many interrelated phenomena. In the view of Van Schayik, UN Youth Representative of the General Assembly, this means the following: “To me, development is having access to education, to other facilities that enable you to develop yourself and to maximally utilize your talents”. While talking about development, many participants mentioned the importance of access to primary goods, facilities and services to fulfil basic needs and to escape poverty. In this context, education and health were mentioned most often. Additionally, development economist Nicky Pouw stresses the importance of sustainable assets such as tools, that are crucial to livelihoods, the means of existence of (poor) people. This multidimensional approach shows resemblance with the capability approach of Sen (1999), especially in the wording of Anne Poorta, senior policy advisor at Foreign Affairs to which development means the following: “Making sure that people (...) develop their capacities to sustain their livelihoods”.

In the case of poverty, this means for a majority of participants that inequality is of great

significance within the conceptualization of poverty. They indirectly employ the concept of relative poverty to describe what they mean. Tjeerdsma explains it the following way: “What poverty is in one country, is wealth in another. The opinions about that, the values differ hugely per country, per culture, per group, etcetera. So yes, I would definitely view it as something relative”. Such a relative analysis often follows after the definition of poverty as something absolute, mainly as a lack of income. According to Pouw: “Poverty is absolute as well as relative”. As a consequence, poverty not only exists Global South, it is also relevant to rich countries. Also in these contexts people can be marginalized or excluded. Of course income inequality is of direct relevance to poverty, but several participants also mention gender, ethnicity and age as important dimensions of inequality in relation to poverty. All participants acknowledge the need to address these inequalities, especially in relation to poverty: “[It] should be acknowledged as a problem way more often. I think inequality should be a lot higher on the agenda” (Pouw).

For a majority of the participants, inclusive development is directly related to addressing inequalities. According to Pouw: “Inclusive development is aimed at the people that are marginalized and excluded from the process of development, to engage those people so they can benefit from development as well”. Poorta adds: “I make the connection between inclusivity and inequality. I mean the last is the problem, and the first is one of the solutions to that”. For this purpose, Poorta identifies four different levels on which inclusive development is relevant to the MDGs. First, on the level of the process, in which a broad consultation should ensure the inclusion of different relevant actors and stakeholders in the post-2015 process. According to Pouw, this also means the participation of poor people themselves, and the recognition of their subjective view of poverty in addition to the objective view of experts: “The people that are poorest and often excluded should be made visible. Those people should have direct influence on the Millennium Development Goals”. Poorta adds: “Second, the content of the goals and targets that we are currently developing need to address the different inequalities that exist in the world at this moment”. Third, inclusive development is relevant to the implementation of the MDGs. It is in this regard that the importance of national ownership is addressed by half of the participants. Although the MDG Agenda is seen as something universal, development issues can be prioritized in national or regional, context-specific policies to maximize local impact. To Tamira Gunzburg, deputy director of poverty eradication advocacy organisation ONE, this also means that “the economic development that exists (...) that everybody benefits somehow from the growth that is generated with their resources or their labour”. Lastly, during the monitoring of progress towards the different goals the different dimensions of inequality and forms of inclusive development can be taken into account. These conceptualizations of poverty and inclusive development provide the foundation for the following evaluation of the current Millennium Development Goals.

### 5.3 A critical evaluation of the Millennium Development Goals

### 5.3.1 *Evaluation of the MDG framework and its impact*

The evaluation of the current MDG framework is strongly influenced by the interpretation of the meaning of the different goals. It is therefore very difficult to address the actual impact of the Millennium Development Goals, since no causal impact can be identified. From an interdisciplinary perspective, it is nevertheless possible to evaluate the combined effects of the MDGs in different fields. For this purpose, the words of Van der Veen provide a valuable starting point:

“The question is, what do we really want? Do we want to raise the poor countries up? Or do we just want that the amount of poor people – wherever they are – decreases? That’s not addressed in the goal” (Van der Veen).

Van der Veen addresses the lack of clarity regarding the implications of MDG1. Based on statements of the United Nations, he identifies the ‘bottom billion’, worlds’ poorest people, as the main target of the MDGs. However, in reality the current progress is mainly dominated by China and India. Six out of the total of eight interviewees confirm this statement, illustrating the relevance of this observation. Political economist Richard Bluhm adds: “All of the progress has been made in countries where aid and these other things that are attached to the MDGs, have played little role”.

In terms of development and poverty eradication, most participants stress that the results of the Millennium Development Goals have been mixed. According to Tjeerdsma, these results should be seen in the perspective of the function of the framework: “Actually this [the Millennium Development Goal Agenda] was sort of an intermediate station. They say ‘halve the amount of people’, what already illustrates that this is not the end-agenda, but an in-between-agenda, a halfway goal”. All participants nevertheless address the current uneven results. Especially Sub-Saharan Africa is lagging behind when it comes to eradicating poverty, although interpretations differ on the actual development of this continent. Mainly Van Schayik and Poorta are optimistic on this matter, with Poorta stating: “Look at the MDGs and see what they did achieve. And then you are talking about a substantial difference in the lives of millions of people, mainly in Africa”. This view stands in sharp contrast to the vision of Bluhm:

“People talk about Africa as if everything is great now. Africa is back as a continent where it was, no more. Which I mean for some countries considerably more, but on average, no more. Now that's a problem” (Bluhm).

In the view of Bluhm, the development in Africa is overestimated and very uneven. Following this statement, it is important to note that the results of the Millennium Development Goals are not only uneven on a global level, but also on regional and national levels. It seems that a substantial part of the bottom billion that Van der Veen mentioned, it not reached. Instead, Tjeerdsma, Poorta and Bluhm agree that a substantial part of the progress on the field of poverty eradication is due to picking low hanging fruits:

“Think about the 1,25 dollar a day line. Compared to 1990, poverty has been halved in terms of percentages. But what does that really mean, when you position yourself just under the critical line of 1,25. You’re actually picking the low hanging fruits, through raising people a few cents while a big core of harsh poverty exists” (Poorta).

The depth of poverty and the most extreme forms of this phenomenon are thus not adequately addressed in the current MDG framework. Following Pouw: “They don’t do it [addressing inequalities] enough. They do it somewhat with regards to women, gender inequality is included. A little bit between countries but no, not sufficiently”. Several participants mention Goal 8, on the global partnership for development, as an example in which international inequality is addressed a little bit.<sup>20</sup> Poorta (2014) confirms “there was no explicit focus on inequalities”, and states the focus on inclusivity could be improved. Van der Veen (2014) states that “indirectly, some distributional aspects are included with regards to equality/inequality”, but overall participants included that inequality is not addressed sufficiently.

On a political level, the Millennium Development Goals are nevertheless seen as a success. “It has created great momentum, resulting in the availability of financial means and the investment of a lot of time, energy and work regarding this topic” (Tjeerdsma). The impact of such a broad international consensus is also stressed by five other interviewees, illustrating the importance of these results. However, exactly for this reason the specification of the means of implementation are largely lacking within the framework, since consensus upon this matter is very demanding from every actor involved, which is confirmed by both Van der Veen and Poorta. The MDGs nevertheless contributed to the agenda setting of development issues at both international and national levels. These effects should however not be overstated; Kampherbeek rightly argues that “people can’t eat consensus”.

The majority of the participants nevertheless sees these forms of international commitment as one of the biggest achievements of the current MDGs. According to Gunzburg, the Millennium Development Goals also have strengthened the ability of people to hold governments accountable to the promises they have made on both national and international levels. Kampherbeek agrees with Gunzburg on this matter and especially stresses the importance of accountability in relation to distribution issues, and thus, addressing inequality and poverty. Bluhm is more critical about this impact on poverty reduction in Sub-Saharan Africa: “Who are we to demand stuff from Africa?”. In this regard, Van der Veen states that the Millennium Development Goals are often seen as a colonial concept from the perspective of the Global South, building on the existing power inequality between the North and the South in accordance with dependency theory as described in the theoretical framework. From the viewpoint of Pouw, this can be explained by the lack of participation of the poor themselves in defining the meaning of poverty and evaluating their own position with regards to

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<sup>20</sup> The targets and indicators of this goal can be found in appendix 1, p. 52.

MDG1 in particular. According to Pouw, this is something that also needs to be included in the measurement of MDG progress.

### 5.3.2 *Measuring poverty as part of the MDGs*

For the current and future Millennium Development Goals, measurement and data are of great importance to track development progress. Gunzburg summarizes the role of data exceptionally well:

“Data is incredibly important. It's important for us to stick to our promises, it's important for us to learn from our mistakes, it's important to help us prioritize where the need is biggest, it's important for us to make sure we're investing in resources in the right places, and that we're not being wasteful or inefficient” (Gunzburg).

During every single interview, all participants brought up several measurement difficulties. First of all in relation to the extreme poverty line, which is the most relevant measure for MDG1 and thus, for this research. The majority of the participants bring up this line when defining the concept of poverty, although at the same time they express some criticism with regards to this measure. The view of Pouw adequately summarizes the most common opinions on this matter: “It is very general, a very rough division (...), that is suitable for international comparison. But to base poverty reduction policies on, it provides too little information”. This poverty line is however very relevant to development policy and the Millennium Development Goals in particular. Although many participants view it as the best practical option, Van Schayik stresses this measurement is not without problems either. The lack of (reliable) data availability is a large issue that also concerns the 1,25 dollar a day line. Furthermore, Poorta strikingly illustrates the possible discrepancy between absolute and relative results which it leads to:

“Let's suppose you have a country in Africa with a poverty rate of 60% in 1990. They have really done their best and reduced it with 15%. That's huge. (...) And let's suppose you have a second country with 5% poverty, reducing it to 2,5%. The second country has reached the goal with a poverty reduction rate of 2,5%, while the first country did not. While the absolute poverty reduction in the first country is much greater” (Poorta).

This observation is indeed of particular relevance to Africa, and sheds a different light on their ‘limited’ progress on the field of poverty reduction. For all of the reasons mentioned above, the benefits of this measure should therefore not be overstated. Poorta mentions the need for complementary measures in addition to the poverty line, of which Pouw provides a more specific proposal:

“The current way we look at poverty might not be sufficient to respect the complexity of the whole and then implement adequate policy interventions. But as long as nothing better is available, we have to work with the options that are available to us. So you should not do one thing and not do another. So hold on to that 1,25 as long as that is meaningful, and look what is further relevant” (Poorta).

“You need something complementary, at least. If you don’t want to replace, if you want to hold on to such an income measure for whatever reason, then you need at least a measure that is complementary and provides insight in non-income standards and that also provides space for people’s own vision, for subjectivity” (Pouw).

Pouw is actually one of few participants that actually offers some insight on what an alternative or complementary measure should encompass. Her vision is unique in the sense that she argues for a qualitative approach to complement the quantitative data, thereby advocating a mixed-methods strategy. Another specific recommendation comes from Tjeerdsma and Poorta, who call for data-disaggregation. This means that progress on any goal is specified for the different dimensions of inequality that have been identified earlier. Van der Veen agrees with Tjeerdsma and Poorta on the desirability of such an approach:

“What I think is really great (...) is the idea that a goal has been reached only if it’s not only the case for people in the city, but also that (...) it not only applies men but also to women, and if it is not only the case for the dominant ethnical group but also for groups that constitute a minority” (Van der Veen).

Such an approach stands in contrast to well-known aggregated indicators such as the HDI, which is according to Poorta not very relevant as a potential indicator to any MDG target. In this context, the Multidimensional Poverty Index is also addressed by Pouw, Poorta and Bluhm. Although Pouw appreciates the multidimensional character of this composite index, both Poorta and Bluhm dismiss it based on the limited availability of data and its resulting little policy relevance. This limited availability of data is also a serious challenge to possibilities of data-aggregation, of which the possibilities are nevertheless currently explored as part of the post-2015 Millennium Development Goals debate.

#### 5.4 The Post-2015 future of the Development Goals

The foregoing conceptualizations of poverty and inclusive development, the evaluation of the existing Millennium Development Goals and the analysis of measurement issues are all very relevant in relation to the establishment of the post-2015 MDG Agenda. According to the participants, it is of great importance that the ‘lessons learnt’ from the current MDGs are taken into account during this process: “Can it [the agenda] be improved? Yes, it has to be improved. The challenges are at least as big as fifteen years ago” (Poorta). One of the most important consequences of this idea is that the next agenda should be universal, and apply to rich countries as well as poor countries. This view is mainly held by Poorta, Van Schayik (2014) and Tjeerdsma, of which the last summarises this as follows:

“(…) what we want, is that the agenda becomes universal. And not only applies to poor countries, as was of course the case with the MDGs. The new agenda should be universal and (...) with the definitions of things as poverty and also the other topic, you actually achieve that as well” (Tjeerdsma).

According to Kampherbeek, this universality is especially important since more poor people are actually now living in rich countries. He thereby indirectly refers to the changing geography of poverty as described in the theoretical framework and the importance to address this development in the upcoming agenda.

These statements about universality are closely related to another important change, namely the integration of sustainability into the next agenda, that is illustrated by the name of the future MDGs: the Sustainable Development Goals. Van Schayik thinks this a very important development, especially in relation to poverty: “As long as poverty exists, that will be inherently unsustainable. And then you can pursue many goals, but you will keep running into that issue”. Furthermore, Poorta adequately summarizes the potential in relation to inclusive development: “I think sustainability is a beautiful concept, since it can comprehend both inequality and inclusivity”. Another novelty relevant to inclusivity and sustainability is the inclusion of a target on social protection, that also Pouw looks favourable upon. Van der Veen is however sceptical about including sustainability goals in an all-encompassing agenda: “I think it’s really great (...) but it’s not going to happen”. According to Van der Veen, a clear focus is needed to achieve development results; therefore the future Agenda should not encompass all development-related issues. A balance between ambition and reality seems necessary, which also applies to the issue of poverty eradication.

Currently, the provisional MDG1 that is discussed in the Open Working Group, contains a target that entails completely eradicating extreme poverty. According to Tjeerdsma and Poorta, such ambition is needed. Although complete eradication may not be possible, they look favourable upon such a goal and its potential impact. Van der Veen however argues that such decisions require the following considerations:

“It is all about projections (...) that should be based on growth rates. So expected growth rates of India and China of course directly impact what happens to the amount of poor people. That, growth and changes in inequality, which together determine how many stay above or under a norm through time. So if you say well, we want a policy that is adapted to this, than you should be able to support this based on various predictions, expectations about what will happen to growth” (Tjeerdsma).

Considering the importance of predictions for MDG policy and the close relation between the conceptualization of poverty and it’s measurement, it is striking how Tjeerdsma describes that negotiations and measurement research are currently separated in the process. At this moment, it is therefore very interesting to integrate the views of Poorta and Tjeerdsma, both policy advisors, with those of Bluhm (2014), an expert in the field of poverty measurement. He argues that the predictions about ending poverty are incorrect, since they are based on the growth of China and India. He states the following:

“China. Responsible for a huge amount of the population being lifted out of poverty there, percentage wise. But China doesn't have many poor people left, right? (...) But China has been growing faster than everybody else. Much, much faster. We all know that, right? We all know that for China sort of 7,5% is sort of an... Almost a political problem, right? So you're in the situation that you're taking a very fast growing country out of the pool, because by its own success it's taking itself out of the pool. But now you're saying, poverty is going to fall at the same pace. What that means is that everybody else needs to grow faster. It has to grow faster because they need to substitute this extremely high-growing country, which is China” (Bluhm).

It is for this reason that according to Bluhm, ending poverty by 2030 is not realistic, since that would demand unrealistic growth rates of Africa. Although Bluhm agrees with Poorta (2014) that goals should be aspirational, he argues for a less ambitious goal. Because according to Bluhm, “Even if you use the Worldbank's own methods, and you make similar optimistic assumptions, you end up with a poverty rate of roughly 8-something percent” (Bluhm). He furthermore argues for an additional poverty line of 2 dollar a day, which will have important consequences: “The second you start putting more than one poverty line for example, you're targeting inequality in a particular way”.

Other possible measures include national poverty lines, of which the inclusion was one of the main recommendations of the United Nations High Level Panel (2013). Mainly Pouw and Tjeerdsma (2014) look very favourable upon a target based on this measure. Such a target would be closely related so issues of national ownership, which Pouw and Van der Veen want to address even more explicit by enabling national targets. Although such a proposal is included in the High Level Panel report (2013), the majority of participants feels the issue of universality is more important and therefore only universal goals and targets must exist. However, the actual inclusion of these measures in the post-2015 agenda is strongly influenced by the different interests at stake in the political process and negotiations:

There are important players now and I think they have an interest in sort of looking at inequality and higher poverty lines, because it's also the ones that rule that if they just look at the prognoses and data, they will see that they're not going to find themselves there. Well they could also be politically opportunistic. I mean they could say that maybe that's the reason to stick with the lower poverty line, so they can proclaim success. (...) I mean, clearly this process is more political than anything else. (Bluhm, 2014).

In this context, Van Schayik warns that the post-2015 Development Agenda should not become the goals in themselves; it is the content that really matters. Nevertheless, it is very important to make informed choices on the focus, measurement and the envisioned impact of the future agenda. For this purpose, the critical evaluation of the existing MDGs in relation to poverty reduction is of crucial importance to implement ‘lessons learnt’ in the future. Therefore, the previous findings on poverty and inclusive development in relation to the Millennium Development Goals will be shortly summarized to lead to a conclusion on these matters.

## 5.5 Résumé

In this résumé, the findings most important to the upcoming quantitative secondary data-analysis will be summarized. It can be concluded that one of the main findings rising from the interviews is that poverty is perceived as a multidimensional phenomenon. While the MDGs as a whole do seem to represent such a conceptualization, the poverty line of MDG1 is a very narrow measure that provides little information on poverty and inclusive development. It is therefore important to reflect upon the development of inequality and poverty with additional measures, since these reflections will partly inform the debate on the post-2015 Agenda and ultimately, the goals and targets that will be set.

In this context, national poverty lines could possibly be a very suitable measure to ensure the universality of the agenda and increase national ownership. Since the possibility for international comparison is however limited, this option will not be further explored through the upcoming secondary data analysis. Furthermore the depth of poverty can be addressed by actually using the already existing poverty gap indicator in poverty reduction analysis. Additionally, an extra poverty line is a useful measure to address inequality when compared to the existing poverty line. This insight is relatively new to both the scientific and the political debate. Therefore it is very interesting to further explore its significance in relation to poverty reduction and inclusive development. Through an analysis of poverty reduction based on this additional poverty line, its potential contribution to the post-2015 agenda can be examined. In this analysis it is of importance to disaggregate the data based on region, to take into account the uneven geographical distribution of poverty reduction. Furthermore the effectiveness of the MDGs should be analysed in relation to both development assistance – which can be seen as one the most important means to reach MDG1 – and economic growth, which is not directly related to the MDGs. All participants furthermore agree that inequality should be taken into account in one form or another, for which the Gini coefficient could be a measurement option. Since this measure is mainly focused on within-country inequality, additional considerations are needed to monitor and address between-country inequalities.

The foregoing means that an alternative operationalization of MDG1 based on the semi-structured interviews would entail two different poverty lines and the poverty gap and additionally involves a measure of inequality. It should however not be forgotten that one of the reasons for the success of the MDGs is its simplicity, which created awareness and broad consensus on these development issues. It can be questioned to what extent the new agenda will be successful in this regard when it becomes more complicated. According to Tjeerdsma, this will be the case anyhow when looking at the current debates in the Open Working Group. Therefore; it is important to make at least well-considered decisions not only based on future predictions, but also based on past results. It is exactly this that will be explored through the following quantitative data-analysis.

## 6. Mixing the methods: The qualitative facilitation of quantitative analysis

In this chapter, the way the previous qualitative findings will facilitate quantitative analysis will be described. This facilitation will provide the main approach to integrating qualitative and quantitative methods as part of the mixed-methods strategy. First of all, the results of the semi-structured interviews will be used as a foundation for hypotheses about poverty reduction, inequality and the effectiveness of the MDGs. The participants have been able to provide feedback on these hypothesis through the Crowdfindings approach. The resulting insights will be shortly discussed. The final hypotheses will determine the sampling technique and data-preparation, which will ultimately lead up to the quantitative analysis in the next chapter.

### 6.1 Hypotheses on poverty reduction as part of the MDGs

The results of the semi-structured interviews have led to some important conclusions concerning inclusive development, poverty reduction and inequality in relation to the (effectiveness) of the MDGs. Some of these conclusions have led to hypotheses that can be tested through quantitative data-analysis, provided the adequate data is available.<sup>21</sup> This issue will be further elaborated on in paragraph 6 (p. 31); it is for this reason that the following hypotheses are specified for the years 2000 and 2008, which have been tested through quantitative analysis:

#### H1: *Poverty reduction hypothesis*

Levels of poverty have been significantly reduced since the establishment of the MDGs.

#### H2: *Low hanging fruits hypotheses*

2.1: The poverty gap has not narrowed significantly between 2000 and 2008.

2.2: Extreme poverty reduction (1,25 dollar) has been significantly more successful than poverty reduction based on 2,50 dollar between 2000 and 2008.

#### H3: *Between country inequality hypothesis*

Inequality based on poverty levels between countries has enlarged between 2000 and 2008.

#### H4: *Within country inequality reduction hypothesis*

Inequality reduction is positively related to poverty reduction; countries who have lowered their Gini between 2000 and 2008 are expected to have been more effective in reducing poverty.

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<sup>21</sup> For this reason, national poverty lines are not included in the following analysis. Since the national poverty line was nevertheless seen as a good option by the majority of the participants, it is still taken into account to answer the research questions.

H5: *MDGs limited effectiveness hypothesis*

The relation between Official Development Assistance (ODA)<sup>22</sup>, and poverty reduction is insignificant. The effect of economic growth is larger and thus, significant in relation to poverty reduction.

H6: *Uneven results hypothesis*

Poverty reduction results and its explanation differ significantly per region. In India and China, mainly GDP growth has contributed to large numbers of poverty reduction. In Sub-Saharan Africa, poverty reduction has been relatively less successful and is influenced more strongly by levels of ODA.

These hypothesis are based on the results of the semi-structured interviews and will facilitate the following quantitative analysis. This is a clear example of triangulation, in which different methods are employed to check research results. Consequently, the validity of the findings will be ensured (Bryman, 2012, p. 608). All these hypotheses will be tested by employing different poverty measures for the same analysis, leading to insight in the character and impact of these different measures and operationalization possibilities and thereby answering the research questions. For this purpose the poverty gap (on both 1,25 and 2,50 dollar a day levels) and two poverty lines will be employed: the existing 1,25 dollar a day poverty line and an additional 2,50 dollar a day line, for which the rationale is simply derived from doubling the existing poverty line.

## 6.2 Crowdfindings feedback

The hypotheses described have been published at an online blog ([dpc.uba.uva.nl/BeyondtheMDGs](http://dpc.uba.uva.nl/BeyondtheMDGs)), along with some general conclusions based on the interview results. In this form of respondent validation as described by Bryman (2008, p. 377), all research participants had the opportunity to provide feedback and engage in online discussions through this website. The response rate has been 50% (four out of the eight interview participants); two participants used this opportunity to confirm the interpretations while two participant gave additional feedback. Pouw and Kampherbeek used this opportunity to add:

‘Poverty reduction has been achieved, in countries such as India and China, but inequality has deepened. The relationship between inequality and poverty is therefore not straightforward. (...) Economic growth alone is not able to resolve the structural inequalities in society that constitute the root cause of chronic poverty. The Post-2015 Agenda should pay more attention to inequality’ (Pouw).

‘Levels of poverty have already been reduced in the 90's. For example, China already reached the first MDG before the MDGs actually started off in 2001’ (Kampherbeek).

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<sup>22</sup> In this hypothesis, ODA is seen a means of implementation of the MDGs, while economic growth is assumed not to be directly related to the Millennium Development Goals.

These quotes illustrates the relevance of the foregoing hypotheses and the interconnection of development, poverty reduction, inequality and growth. This additional information has been taken into account during the quantitative analysis.<sup>23</sup>

### 6.3 Sampling and data-preparation

The data required for answering the research questions and testing the hypothesis, has been provided by the World Bank Databank.<sup>24</sup> This data is based on household surveys. Furthermore, the dataset of research participant Bluhm has been used, which was made available for research purposes. This dataset is based on World Bank Data but has some distinct advantages as a consequence of data preparation efforts. For instance, when national representative survey were not available, rural/urban population were weighted by Bluhm to construct national series. Still, data availability is very limited, especially when aiming to compare developments over several years.

Since the research questions and the hypothesis concern the effectiveness of the MDGs on the field of poverty reduction, it is essential that this process is reviewed up from the year in which the MDGs were established, namely 2000. The effectiveness of the MDGs can be measured best by comparing poverty levels (and values from associated variables) from that year with the most recent data. However, at the time of writing (2014) much data is only available up to 2010 highest. To ensure a sample size that is large enough for statistical analysis and to meet associated assumptions, the year 2008 has been chosen as the second moment of measurement from which values will be used.

Still, for a substantial part of the countries, values for both 2000 and 2008 were not directly available. Instead available years closest to 2000 or 2008, of which the combined average equalled either 2000 or 2008, have been used to generate the data needed. For this purpose, all trends were assumed to be linear. This was carefully considered as the most suitable option for this research, since it improved data availability and statistical analysis options significantly. Still, not all incidences of poverty can be included since data needed to calculate values for years 2000 and 2008 is unavailable for many countries.

It is therefore acknowledged that this procedure involves some measurement bias, since the calculated values will most likely deviate from reality. Development is often not linear as has been assumed during data preparation. Furthermore it is expected that the poorest countries have the littlest capacity to collect data and are therefore disproportionately affected by the issue of limited data availability. Nevertheless the influence of this bias was minimized through the earlier described additional calculation of values for years 2000 and 2008, which greatly increased the usable data for especially poor countries. Additionally, developments such as poverty reduction were calculated based on the value difference between 2000 and 2008.

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<sup>23</sup> An evaluation of this Crowdfindings experiment will be available in July 2014 in the form of a separate paper.

<sup>24</sup> The World Bank Databank can be accessed via <http://databank.worldbank.org/>.

All countries for which data was available (or could be calculated) for the years 2000 and 2008 were initially considered for this sample.<sup>25</sup> The criterion to ultimately include them was the existence of a minimum amount of extreme poverty to ensure adequate variability for analysis purposes. In this sample, the country with the lowest headcount poverty rates (.0007 based on 1,25 dollar a day and .0025 based on 2,50 dollar a day) that do not equal zero is Croatia. As a consequence of this sampling method, many Western countries are not included, since these do not offer any variability when it comes to extreme poverty. Therefore, these countries were not targeted by MDG1, the topic of this research. An important consequence of this sampling method is that the external validity is limited; these results do not apply to highly-developed countries in the western world. Nevertheless, this sampling technique resulted in a great variation and representation of all regions and income groups. All countries included in the sample and its most important characteristics (region, income group and the base-years of calculation) are provided as appendix 7 (p. 64).

#### 6.4 Data-analysis

The different hypothesis as set out in paragraph 6.1 will guide the secondary data analysis. First, an overview of descriptive statistics is presented, along with an overview of disaggregated values per geographical region. This provides some background information on the sample and poverty reduction and inequality between regions (and thus, to H1, H3 and H6). As part of the following explanatory analyses, t-tests have been employed to test the *poverty reduction hypothesis* (H1) and the *low hanging fruits hypotheses* (H2). Subsequently beta-regressions<sup>26</sup> have been used to explore how inequalities between countries have changed between 2000 and 2008, based on poverty reduction (H3). In this kind of convergence models, the starting level of growth is taken into account which results in the expectation that a lower starting level will result in higher growth and thus in the reduction of inequality. Since the variation in income and poverty levels of the sample is large, this analysis provides insight in the development of inter-country inequality based on poverty very well.

The last three hypotheses on within country inequality (H4), MDG effectiveness (H5) and uneven results (H6) have been addressed through multiple regressions. In a selection of these regressions, dummy variables have been used for regions that are expected to have different poverty reduction results or explanations based for the interview results. As a consequence, the effect of development assistance on poverty reduction in Sub-Saharan Africa and the effect of economic growth on poverty reduction in China and India can be examined. Furthermore, the change in the Gini coefficient between 2000 and 2008 has been included to investigate the effect of inequality reduction on poverty reduction. Through the use of different poverty measures in these analyses, the impact of the operationalization of poverty on the MDG1 results is assessed.

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<sup>25</sup> Following this rationale, in all explanatory analyses cases with missing values have been excluded listwise.

<sup>26</sup> This analysis technique is mainly used in econometrics; its application on poverty reduction is inspired by Olders (2014, personal communication) and strengthens the interdisciplinary character of this research.

## 7.0 Results: Quantitative secondary data-analysis

In this chapter, the results of the quantitative secondary data-analysis will be described. First of all, descriptive statistics will be explored. These statistics are the outcome of the sampling and data-preparation as described in the previous chapter. The hypotheses as described are the guidelines for the following explanatory analysis involving t-tests, beta-regression and multiple regression, leading to a final conclusion as part of the résumé.

### 7.1 Descriptive statistics

In table 1, an overview of the descriptive statistics of the variables relevant to the hypotheses and/or used in explanatory analyses is provided.

**Table 2: Descriptive statistics**

	<b>N</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>
Region (World Bank)	64	1	4	2.52	1.054
Gini Change	64	-.131	.098	-.009	.042
Population mean (in millions)	64	1.022	1297.92	70.135	209.679
Poverty headcount ratio 1,25d 2000	64	.001	.825	.268	.261
Poverty headcount ratio 2,50d 2000	64	.003	.949	.498	.325
Poverty headcount ratio 1,25d 2008	64	.00	.732	.187	.228
Poverty headcount ratio 2,50d 2008	64	.001	.951	.386	.332
Poverty reduction headcount ratio 1,25d	64	-.105	.317	.081	.092
Poverty reduction headcount ratio 2,50d	64	-.041	.590	.111	.124
Poverty gap 1,25d 2000	64	.001	.947	.112	.135
Poverty gap 2,50d 2000	64	.001	.698	.253	.213
Poverty gap 1,25d 2008	64	.000	.395	.071	.102
Poverty gap 2,50d 2008	64	.005	.608	.183	.193
Poverty gap change 1,25d	64	-.316	.124	-.041	.063
Poverty gap change 2,50d	64	-.295	.086	-.071	.073
Poor 1,25d population 2000 in millions	64	.003	466.412	21.676	76.062
Poor 2,50d population 2000 in millions	64	.011	894.871	43.629	151.602
Poor 1,25d population 2008 in millions	64	.000	386.935	14.578	53.234
Poor 2,50d population 2008 in millions	64	.005	852.729	34.798	124.341
Poverty reduction population 1,25d in millions	64	-1.075	225.296	7.099	29.776
Poverty reduction population 2,50d in millions	64	-.193	318.981	8.831	40.098
GDP annual mean growth	64	.119	16.636	5.702	2.626
ODA per capita annual mean	58	-1.509	129.346	33.185	31.413

These descriptive statistics provide insight in some general characteristics and developments concerning poverty. For this sample, the average poverty headcount rate in 2000 is .268 (indicating a poor population of 1387.62 million) based on the 1,25 dollar a day poverty line and .498 (indicating a poor population of 2792.26 million) based on the 2,50 dollar a day poverty line. This means that the 2,50 dollar a day line captures around twice as much poverty than the 1,25 dollar a day line; apparently, many people are living just above the 1,25 dollar a day line. In 2008, these poverty levels lowered until .187 and 932.96 million (1,25 dollar a day) and .386 and 2227.08 (2,50 dollar a day), meaning that on average poverty lowered 8,1 percentage point or 454.30 million (1,25 dollar a day) and 11.1 percentage point or 565.17 million people (2,50 dollar a day). Extreme poverty has lowered 17.04 percent between 2000 and 2008. Based on these poverty levels, it can be calculated that based on population rates, extreme poverty has been reduced with 32.75 percent between 2000 and 2008, while poverty based on the 2,50 dollar a day line was reduced by 20.25 percent. This means that in 2008, poverty reduction progress was on track to reaching the goal of halving extreme poverty based on 1,25 dollar. Relatively, poverty reduction based on 2,50 dollar a day has been less successful, albeit its absolute reduction has been greater when compared to extreme poverty reduction.

Together with the poverty gap, the variables concerning poverty reduction are all considered as dependent variables. Their development will be further explored through t-tests; for these reasons, they will not be further elaborated on at this moment. The independent variables are Gini Change (calculated by subtracting the Gini in 2008 by the Gini in 2000), GDP annual mean growth and ODA per capita annual mean, for which the rationale is directly derived from the interview results.

Furthermore the countries included in the sample have been grouped based on the interview results, from which Sub-Saharan Africa and India/China appeared to be of great relevance in relation to the Millennium Development Goals. For Sub-Saharan Africa, this is based on the high levels of extreme poverty that are supposed to be targeted by the MDGs. For China and India, this relevance is based on their high numbers of poverty reduction that seem to be related to their economic growth and thus, not to the MDGs. The descriptive statistics of both groups can be found in tables 3 and 4 on the following page.

The comparison of the descriptive statistics of Sub-Saharan Africa and China and India leads to several remarks on the differences between these regions. For Sub-Saharan Africa (N = 15) the population included in the sample its total population comprises 342.96 million people.<sup>27</sup> China and India have a combined population of 2.385 billion. Partly for or this reason, the impact of China and India on absolute poverty reduction has been much larger than that of Sub-Saharan Africa.

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<sup>27</sup> Not all Sub-Saharan Countries are included in this sample, due to limited data availability. The conclusions are based on 15 countries with a total population of 342.96 million people. The region Sub-Saharan Africa as a whole comprises 47 countries and 819.16 million people in 2012 according to the World Bank Databank (<http://data.worldbank.org/region/sub-saharan-africa>). Although this data enables conclusions about the Sub-Saharan countries included and some generalizations about the region as a whole, it is acknowledged that the external validity of this sample is limited. This issue is further elaborated on in the discussion (p. 46).

Table 3: Descriptive statistics Sub-Saharan Africa

	Min.	Max.	Mean	SD
Population Mean	1.02	131.53	22.86	31.96
HC ratio 1,25d 2000	.21	.83	.61	0,21
HC ratio 2,50d 2000	.51	.95	.84	0,15
Poverty red. HC ratio 1,25d	-.10	.32	.10	.11
Poverty red. HC ratio 2,50d	-.04	.09	.04	.04
Poverty gap 1,25d 2000	.06	.49	.30	.15
Poverty gap 2,50d 2000	.23	.70	.52	.16
PG change 125d	-.32	.12	-.08	.11
PG change 250d	-.25	.09	-.07	0.09
Poor 1,25d pop. 2000	.56	8.82	12.49	19.39
Poor 2,50d pop. 2000	.88	110.85	17.54	26.57
Poverty red. pop. 1,25d	-1.08	4.42	1.37	1,59
Poverty red. pop. 2,50d	-.18	3.65	.66	.99
Gini Mean	.39	.62	.47	.07
Gini Change	-.13	.09	-.01	.06
ODA per capita annual mean	14.19	91.98	47.28	25.31
GDP annual mean growth	.12	11.21	5.20	2.75
Valid N = 15				

Table 4: Descriptive statistics China/India<sup>28</sup>

	Min.	Max.	Mean	SD
Population mean	1086.82	1297.92	1192.37	149.27
HC ratio 1,25d 2000	.31 (C)	.46 (I)	.38	.11
HC ratio 2,50d 2000	.65 (C)	.88 (I)	.76	.16
Poverty red. HC ratio 1,25d	.08 (I)	0.18 (C)	0.13	0.07
Poverty red. HC ratio 2,50d	.04 (I)	0.25 (C)	0.15	0.15
Poverty gap 1,25d 2000	.09 (C)	.12 (I)	.11	.02
Poverty gap 2,50d 2000	.30 (C)	.42 (I)	.36	.09
PG change 125d	-.06 (C)	-.03 (I)	-.05	.02
PG change 250d	-.15 (C)	-.05 (I)	-.10	.07
Poor 1,25d pop. 2000	391.31 (C)	466.41 (I)	428.86	53.10
Poor 2,50d pop. 2000	825.93 (C)	894.87 (I)	860.40	48.75
Poverty red. pop. 1,25d	79.48 (I)	225.30 (C)	152.39	103.11
Poverty red. pop. 2,50d	42.14 (I)	318.98 (C)	180.56	195.76
Gini Mean	.33 (I)	0.42 (C)	0.37	0.07
Gini Change	.02 (C/I)	.02 (C/I)	.02	.00
ODA per capita annual mean	1.19 (C)	1.31 (I)	1.25	.09
GDP annual mean growth	6.72 (I)	10.41 (C)	8.57	2.61
Valid N = 2				

Nevertheless, from these descriptive statistics it can be concluded that on average, extreme poverty reduction rates do in both regions do not differ as much as expected based on the interview result when looking at the relative headcount ratio based on 1,25 dollar a day; in Sub-Saharan Africa, this ratio was reduced by .10 percentage point on average, while in China and India, this is .13 percentage point. Likewise, the poverty gap was reduced in both regions. Although the results based on absolute poverty reduction seem to confirm the *uneven results hypothesis* (H5), relative results are less uneven.

However, also considerable differences exist between both regions. While the average within country inequality is highest in Sub-Saharan Africa, this inequality was reduced on average between

<sup>28</sup> Symbols (I) and (C) in the minimum and maximum columns indicate the source of each value: India (I) or China (C).

2000 and 2008. In contrast, the inequality in China and India was slightly larger in 2008 compared to 2000. China and India also experienced larger annual GDP growth, while Sub-Saharan Africa received a lot more ODA per capita.

It should be acknowledged that considerable differences exist within both regions as well as between them. Although poverty has been reduced in most countries, in several African countries (for instance Mauritania and Madagascar) the incidence of poverty increased. This also applies to the depth of poverty; while this has been reduced in most countries, it increased in for instance Cote d'Ivoire and Zambia. Also growth rates and the amount of ODA received per capita differ widely, as is confirmed by the difference between the minima and maxima in table 4 (p. 35). These differences seem even larger for China and India, especially for absolute poverty reduction and GDP growth. About three times as many people were moved out of poverty in China when compared to India. On average, China's development has been more successful than that of India. Nevertheless these countries share important similarities when compared to other regions, as has been confirmed by the comparison of the descriptive statistics of Sub-Saharan Africa and China and India. Based on these shared characteristics and the theoretical relevance as confirmed by the interview results, both regions as a whole will be further analysed in paragraph 7.2.3 (p. 38).

## 7.2 Explanatory analyses

### 7.2.1 *T-tests on poverty reduction and low-hanging fruits*

Several dependent t-test have been employed to examine the development of poverty between 2000 and 2008 for different measures. The assumptions for this kind of analysis have been met: data is measured at interval level at minimum and differences between scores are considered to be normally distributed.<sup>29</sup>

First, the *poverty reduction hypothesis* (H1) will be addressed. Extreme poverty (1,25 dollar a day) has been reduced significantly between 2000 ( $M = .27$ ,  $SE = .03$ ) and 2008 ( $M = .18$ ,  $SE = .28$ ),  $t(63) = 7.11$ ,  $p < .001$ ,  $r = .67$ , based on the headcount ratio. Poverty reduction based on the headcount ratio of 2,50 dollar a day is also significant between 2000 ( $M = .50$ ,  $SE = .04$ ) and 2008 ( $M = .39$ ,  $SE = .04$ ),  $t(63) = 7.18$ ,  $p < .001$ ,  $r = .67$ , both representing large effects. These findings confirm the poverty reduction hypothesis.

Second, the low hanging fruits hypotheses (H2) has been tested. The depth of poverty has been reduced significantly, contrary to the expectation (H 2.1). The poverty gap based on 1,25 dollar a day was significantly higher in 2000 ( $M = .11$ ,  $SE = .02$ ) than in 2008 ( $M = .07$ ,  $SE = .01$ ,  $t(63) = 5.24$ ,  $p < .001$ ,  $r = .55$ , representing a large effect. Also when poor below the 2,50 dollar a day line are taken into account, the poverty gap was reduced significantly between 2000 ( $M = .25$ ,  $SE = .27$ ) and 2008 ( $M = .18$ ,  $SE = .24$ ,  $t(63) = 7,79$ ,  $p < .001$ ,  $r = .70$ , representing a very large effect. Hypothesis

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<sup>29</sup> Following the central limit theorem (Field, 2009:42), normality is assumed for any sample > 30 N.

2.2 on the poverty reduction based on both 1,25 and 2,50 is thus also rejected. On average, about as many people were lifted from poverty based on the 1,25 dollar a day line ( $M = 7,10$  million,  $SE = 3.72$ ) as there were based on the 2,50 dollar a day line ( $M = 8.83$  million,  $SE = 5.01$ ,  $t(63) = -1.05$ ,  $ns$ ). However, when calculated based on the headcount ratio instead of the amount of people, poverty reduction based on the 1,25 dollar a day line ( $M = .08$ ,  $SE = .01$ ) was significantly less successful than poverty reduction based on the 2,50 dollar a day line ( $M = .11$ ,  $SE = .02$ ),  $t(63) = -2.396$ ,  $p < .05$ ,  $r = .029$ . The rejection of both low hanging fruits hypotheses has interesting theoretical implications, that will be further elaborated on in the résumé of this chapter.

Before analysing between-country inequality as part of H3 in the following paragraph, one final t-test can provide further information on the development of within-country inequality. On average, Gini coefficients in 2000 ( $M = .42$ ,  $SE = .01$ ) do not differ significantly from coefficients in 2008 ( $M = .42$ ,  $SE = .012$ ,  $t(63) = 1.70$ ,  $ns$ ). Although within country inequality was not reduced significantly in this eight-year period, the Gini Change (Gini 2008 – Gini 2000) has been calculated to take into account national differences that will be used as a predictor of poverty reduction in multiple regression in paragraph 7.2.3 (p.38), based on the interview results.

### 7.2.2 Beta-regression on poverty-based inequality between countries

A beta-regression, also known as a convergence model, will be employed address the between country inequality hypothesis (H3) and to explore how inequalities in poverty reduction have changed over time.<sup>30</sup> In this beta-regression, the starting level of growth is taken into account, resulting in the expectation that a lower starting level will result in higher growth and thus the reduction of inter-case inequality.<sup>31</sup> Since the variation in income and poverty levels of the sample is large, this analysis provides insight in the development of inter-country inequality based on poverty very well.

For this analysis the natural logarithm of the growth rate of the poverty headcount ratio has been calculated, which serves as the dependent variable. The natural logarithm of the starting level of the headcount ratio in 2000 is the independent variable in this model. From the beta-regression at the 1,25 dollar a day line, it can be concluded that inequality does not decrease significantly ( $b = .181$ ,  $ns$ ). However, if the headcount ratio is calculated at the 2,50 dollar a day level, the convergence is significant ( $b = .44$ ,  $p < .001$ ) but nevertheless should be interpreted with caution due to heteroscedasticity.<sup>32</sup> This still leads to the conclusion that the levels of less extreme poverty (at 2,50 dollar a day) seem significantly more equal between countries, but this is not the case for most extreme forms of poverty (at 1,25 dollar a day). This conclusion has been confirmed by a follow up

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<sup>30</sup> This model is mainly used in econometrics; its application on poverty reduction is inspired by Olders (2014, personal communication).

<sup>31</sup> This is indicated by a significant negative  $b$  in cases of growth (Hossain, 2000: 14), but in cases of poverty reduction (a negative value when calculated by the poverty headcount ratio), a significant positive  $b$  instead indicates convergence.

<sup>32</sup> Assumptions for this analysis are described in appendix 8, p. 66.

analysis that addressed the convergence of the poverty gap. Again, results for the 2,50 dollar a day line showed significant convergence ( $b = .34$ ,  $p < .01$ ), while the inequality between countries based on the poverty gap of 1,25 did not show any significant change ( $b = -.05$ ,  $ns$ ). These results altogether lead to the conclusion that inter-country inequalities based on most extreme forms of poverty have not been adequately addressed, while the inter-country inequalities based on the 2,50 dollar a day line have been reduced significantly between 2000 and 2008.

### 7.2.3 Multiple regression on explanations, MDG effectiveness and uneven results

Based on the interview results, it is expected that the GDP growth in India and China has strongly contributed to poverty reduction, while development assistance was mainly aimed at Sub-Saharan Africa and therefore had the largest effects in that region. Both of these expectations, that are part of the *MDG limited effectiveness hypotheses* (H5) and the *uneven result hypothesis* (H6) have been tested by multiple regression. Also the influence of a third independent variable, Gini change, is taken into account as part of the within country *inequality reduction hypothesis* (H4). The dependent variables involved in different models are poverty reduction based on headcount ratio, the number of people lifted out of poverty and the change of the poverty gap. These variables are measured both at 1,25 dollar a day and 2,50 dollar a day levels, to take the effect of measurement into account. The resulting models of the multiple regressions have been summarized in table 2 and 3, of which the most important results will be further discussed. An overview of the assumptions for all multiple regressions can be found in appendix 8 (p. 66); for these models, all assumptions are met.

**Table 5: Multiple regression models: poverty reduction based on headcount ratio**

<b>Model</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>	<b>4.</b>
	Poverty reduction headcount ratio 1,25	Poverty reduction headcount ratio 2,50	PR HC 1,25 weighted for population	PR HC 2,50 weighted for population
<b>A</b>				
(constant)	.08* (.03)	.12** (.04)	.04*** (.00)	.05*** (.00)
GDP annual mean growth	.03 (.00)	.03 (.01)	.42*** (.00)	.37*** (.00)
ODA per capita annual mean	.00 (.00)	-.11 (.00)	-.09*** (.00)	-.23*** (.00)
Gini Change	-.309* (.30)	-.11 (.42)	.14*** (.04)	.02 (.06)
<b>B</b>				
(Constant)			.04*** (.00)	.14*** (.00)
GDP annual mean growth			.37*** (.00)	.37*** (.00)
ODA per capita annual mean			.03 (.00)	-.14*** (.00)
Gini Change			.11*** (.04)	.06*** (.06)
Sub-Saharan Africa			-.13*** (.00)	-.22*** (.01)
China & India			.13*** (.00)	-.05* (.00)

In model 1 and 2, the independent variables are poverty reduction based on the headcount ratio of respectively 1,25 dollar a day and 2,50 dollar a day . None of these models significantly predicts poverty reduction, although it can be concluded that a positive correlation exists between inequality reduction<sup>33</sup> and poverty reduction based on the headcount ratio of 1,25 dollar a day ( $p < .05$ ). This confirms the within country *inequality reduction hypothesis* (H4), but only for extreme poverty reduction based on the headcount ratio.

Since the size of the population of course strongly contributes to the size of poverty reduction, this multiple regression has been repeated when weighted for mean population. This results in two models, 3a ( $F(3,4269) = 481.30; p < .001; R^2 = .25$ ) and 4a ( $F(3, 4269) = 370.17; p < .001; R^2 = .21$ ), that significantly predict poverty reduction on both 1,25 dollar and 2,50 dollar a day levels. When weighing for population, India and China are expected to strongly contribute to extreme poverty reduction based on their population size, while Sub-Saharan Africa contributes only little. Therefore both regions have been included as dummy variables in the b-models. The resulting models 3b ( $F(5, 4267) = 323.85; p < .001; R^2 = .28$ ) and 4b ( $F(5, 4267) = 269.97; p < .001; R^2 = .24$ ) predict poverty reduction better than the previously described models, when comparing models based on the same poverty lines.

From the results, it can be concluded that annual mean GDP growth indeed significantly predicts poverty reduction in model 3a, 3b, 4a, and 4b ( $p < .001$  in all models); these variables are positively related as expected. Inequality is – contrary to the expectation – significantly positively related to poverty reduction in models 3a, 3b, 4a and 4b ( $p < .001$  in all models). Since the cases are weighted by population size this effect is however mainly explained by the rise of inequality in China and India as described earlier. Extreme poverty reduction has been significantly more successful in that countries when compared to other regions<sup>34</sup> ( $p < .001$  in 3b,  $p < .05$  in model 4b). Contrary to expectation, poverty reduction based on the 2,50 dollar a day line was found to be significantly less successful in China and India ( $p < .05$ ). Also, poverty reduction has been significantly less successful in Sub-Saharan Africa, based on both the 1,25 dollar a day line in model 3b ( $p < .001$ ) and the 2,50 dollar a day line in model 4b ( $p < .001$ ), confirming the *uneven results hypothesis* (H6).

Although ODA as well significantly predicts poverty reduction in model 3a and 4a ( $p < .001$  in both models), these variables are negatively related to poverty reduction. Since ODA is seen as one of the primary means of implementation of the Millennium Development Goals, this confirms the *MDGs limited effectiveness hypothesis* (H5). Moreover, this means that larger mean levels of ODA significantly correlate with low levels of poverty reduction. Two possible explanations can account

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<sup>33</sup> Since Gini Change has been calculated by subtracting the Gini value in 2000 from the Gini value in 2008, a negative Gini Change indicates the reduction of inequality. A negative relation between Gini Change and poverty reduction thus indicates a positive relationship between inequality reduction and poverty reduction.

<sup>34</sup> All countries not belonging to the dummy regions (India/China and Sub-Saharan Africa) belong to the reference category. Since this includes countries from a wide variety of regions and income categories, this will provide an ‘average’ on all developments to which both dummy regions are compared.

for this effect together. First, ODA is mainly targeted at the very poorest countries, that have low levels of growth and poverty reduction. This explanation has been confirmed in table 3 (p. 35), from which ODA-levels appeared to be particularly high in Sub-Saharan Africa. Second of all, the positive effects of ODA could apparently be limited in the countries targeted by it. This explanation has been investigated in additional regression models, which are provided in table 6.

In the following models, absolute poverty reduction has been further investigated by the use of the amount of people moving out of poverty between 2000 and 2008 as dependent variables. The effect of ODA on Sub-Saharan Africa has been assessed through including the interaction of ODA and the dummy for Sub-Saharan Africa. Additionally, in this models a possible explanation for the high absolute poverty reduction in China and India assessed through providing the interaction of this dummy variable with GDP growth. This multiple regression was repeated with the change in the poverty gap as a dependent variable in models 7 and 8, to assess the depth of poverty as well. Again an overview of assumptions can be found in appendix 8 (p. 66).

**Table 6: Multiple regression models: poverty reduction based on population and poverty gap**

<b>Model</b>	<b>5.</b>	<b>6.</b>	<b>7.</b>	<b>8.</b>
Dependent variable	Poverty reduction pop.1,25d	Poverty reduction pop. 2,50d	Poverty gap change 1,25d	Poverty gap change 2,50d
<b>A</b>				
(constant)	.97 (9.74)	1.30 (13.38)	-.04 (.02)	-.07** (.02)
GDP annual mean growth	.29* (1.42)	.26* (1.95)	.08 (.00)	.01 (.00)
ODA per capita annual mean	-.30* (.13)	-.28 (.18)	-.14 (.00)	.001 (.00)
Gini Change	.22 (95,19)	.195 (130.7)	.53*** (.19)	.35** (.23)
<b>B</b>				
(Constant)	2.59 (1.92)	6.34** (1.91)	-.02 (.02)	-.06* (.03)
GDP annual mean growth	.04 (.28)	.00 (.28)	.04 (.00)	.03 (.00)
ODA per capita annual mean	-.05 (.03)	-.05* (.03)	-.18 (.00)	-.14 (.00)
Gini Change	.03 (17.97)	0.01 (17.95)	.52*** (.18)	.39** (.24)
Sub-Saharan Africa	-.10 (3.29)	-.05 (3.28)	-.70** (.03)	-.25 (.04)
Sub-saharan Africa ODA	.003 (.06)	.27 (.06)	.48* (.00)	.38 (.00)
China & India	-1.11*** (18.03)	-2.05*** (18.01)	.13 (.18)	.83 (.49)
China & India GDP Growth	2.02*** (2.07)	2.88*** (2.06)	-.28 (.02)	-.64 (.03)

Population based poverty reduction is significantly predicted by model 5a ( $F(3, 54) = 3.66; p < .05; R^2 = .17$ ), and model 5b ( $F(7, 50) = 271.41; p < .001, R^2 = .97$ ), of which the last model explains a very high amount of 97% of the total variance. The same pattern can be found for the amount of people lifted out of poverty based on the 2,50 dollar a day line; model 6a ( $F(3, 54) = 2.85; p < .05; R^2 = .14$ ) as well as 6b ( $F(7, 50) = 499.46; p < .001; R^2 = .99$ ) significantly predict poverty reduction. The high

$R^2$  of both b-models can be explained by the significant prediction of poverty reduction by GDP growth in India and China ( $p < .001$ ), which is thus strongly related to absolute poverty reduction. From models 5b and 6b it can be furthermore concluded that ODA does not explain poverty reduction in Sub-Saharan Africa significantly. In models 5a and 6a ODA is again negatively related to poverty reduction in models 5a and 6b ( $p < .05$ ). When population size is taken into account, the *within country inequality reduction hypothesis* (H4) can thus be rejected. Nevertheless, models 5 and 6 should be interpreted with caution; the assumptions for homoscedasticity and linearity have not been met, resulting in limited generalizability of the results.

In the models 7 and 8 the depth of poverty is examined, for which Gini change is negatively related to the change in the poverty gap between 2000 and 2008 ( $p < .001$  for models 7a and 7b,  $p < .01$  for models 8a and 8b). This means that inequality reduction positively related to the reduction of the depth of poverty, which supports the *within country inequality reduction hypothesis* (H4). In contrast to the previous models, GDP growth is not a significant predictor for the change in the poverty gap in models 7 and 8. Overall the change in the poverty gap is significantly predicted by models 7a ( $F(3, 54) = 6.34$ ;  $p < .01$ ;  $R^2 = .26$ ) and 7b ( $F(7, 50) = 5.08$ ;  $p < .001$ ;  $R^2 = .33$ ), while models 8a and 8b do not significantly predict poverty reduction based on the 2,50 dollar a day line.

Furthermore it is particularly striking that for Sub-Saharan Africa, ODA positively correlates with the change in the poverty gap (based on 1,25 dollar a day) and thus with an increasing depth of poverty ( $p < .05$ ). This not only confirms the *MDGs limited effectiveness* (H5) but also indicates that indeed the poverty reduction in Sub-Saharan Africa might be mainly based on low hanging fruits, while the poorest remain extremely poor.

### 7.3 Résumé

In this résumé, research question 4 on the results of the MDGs following from alternative measurement, will be answered. Through the foregoing explanatory analyses it has been confirmed that poverty has been significantly reduced since the establishment of the MDGs, thereby confirming the *poverty reduction hypothesis* (H1). Nevertheless these results have proven to be very unequal based on region, thereby also confirming the *uneven results hypothesis* (H6). The specific relevance of both Sub-Saharan Africa and China and India, following from the interview results, has been confirmed by the results of the foregoing analyses.

Poverty reduction in China and India is indeed significantly explained by GDP growth. Development assistance was found to be negatively related to poverty reduction. This can be explained by the fact that ODA is mainly aimed at the poorest countries, who struggle to reduce poverty effectively. However, this also means that one of the primary means of implementation of the Millennium Development Goals is negatively related to the primary goal of this framework, namely poverty reduction. This confirms the *MDGs limited effectiveness hypothesis* (H5). Most of the poverty

reduction (situated in China and India) has proven to be significantly related to GDP growth instead, which is a factor not directly related to the MDGs.

While inequality between countries based on poverty reduction has been reduced when measured by the 2,50 dollar a day line, no such effect exist based on the 1,25 dollar a day line. Although the MDGs mainly targeted extreme poverty, inequality between countries has not been reduced based on this measurement. Still, this leads to the rejection of the *between country inequality hypothesis* (H3), since inequality between countries based on poverty reduction was not enlarged as suggested by the interview results. This analysis furthermore illustrates the significance of the use of different measurements, that can lead to different conclusions on MDG progress. For instance, it has been found that absolute poverty reduction based on the 1,25 dollar a day line has been significantly less successful than poverty reduction based on the 2,50 dollar a day line. This supports the *MDGs limited effectiveness hypothesis* (H5), since extreme poverty reduction has been the primary target of MDG1.

The related *within country inequality reduction hypothesis* (H4) has been confirmed only for extreme poverty reduction based on the headcount ratio and the change in the depth of poverty. However, when weighted for population size, within-country inequality is actually positively related to poverty reduction. This effect can be mainly explained by the influence of China and India, where large numbers of absolute poverty reduction coexisted with rising inequality. An explanation of this relationship between these two phenomena in China and India has not been provided by this quantitative analysis. Following from the theoretical framework, it could be argued that the modernization of both countries increases structural inequalities and most wealth does not trickle down to the poor.

It is however striking that poverty reduction based on headcount ratio of the 2,50 dollar a day line has been less successful in China and India in comparison to a wide variety of other regions. Although the *low hanging fruits hypothesis* (H2) has been rejected initially based on a more general analysis, this indicates that this hypothesis is of regional relevance to China and India. During the interviews the relevance of low hanging fruits was instead often related to Sub-Saharan Africa. This analysis however confirms that mainly the success in China and India might be part of picking the low hanging fruits of poverty.

Based on the results of this analysis, one can therefore question to what extent growth and development have been inclusive between 2000 and 2008. Although on average, both absolute and relative poverty has been reduced significantly, the use of different measures and regional differentiation has led to a more nuanced answer to research question 4 on the results of the MDGs. This has been mainly achieved to the use of measures that are already included in the MDG-framework. By the employment of an extra poverty line, an additional level of (extreme) poverty has been taken into account. Furthermore the poverty gap – which is currently an indicator to MDG 1.1 but is often not reported in development reports – has proven to be very suitable to address the depth

of poverty. The change of this indicator between 2000 and 2008 is thus an indication to what extent development has been inclusive. The significant reduction of the depth of poverty between 2000 and 2008 indicates that to a certain extent, development has indeed been inclusive. Furthermore the significant prediction of this indicator by the change in within-country inequality confirms that these concepts are indeed closely related; not only in development theory, but also in development practice. This has important implications for the Post-2015 Development Agenda, that will be further elaborated on in the following conclusion.

## Conclusions

### *Conclusion*

In this conclusion it will be described how existing critiques on the Millennium Development Goals have led to an alternative conceptualization, measurement and result analysis of poverty as part of the first MDG, based on inclusive development. The findings arising from the qualitative interviews and the quantitative data-analysis have been integrated to answer this main research question from an interdisciplinary perspective.

From theory and the perspective of the research participants it can be concluded that both development and poverty are multidimensional concepts that require an interdisciplinary approach. The Millennium Development Goals as a whole seem to reflect such a comprehensive approach to both issues; MDG1.A itself is however limited to only one dimension of development. The goal on eradicating extreme poverty is income-centred and targeted on people living below the 1,25 dollar a day poverty line. From all the possible conceptualizations set out in the theoretical framework,<sup>35</sup> MDG1.A represents an objective, absolute and narrow measure. This stands in sharp contrast to the conceptualization of development as the ability to function in a variety of ways by the interview participants in line with Sen (2007).

The measurement of the first Millennium Development Goal has therefore been strongly criticized by the research participants, since it is seen as overly simplistic and one-dimensional. Nevertheless, it has been acknowledged that an indicator based on the poverty line of 1,25 dollar a day is useful for measuring and communicating poverty reduction relatively easy. These characteristics of MDG1 have contributed to the creation of political consensus and the mobilization of the means to reach this goal; elements that are seen as the main success of the MDGs. Still it can be concluded that in addition to this poverty line, complementary measurements are needed.

It has been suggested that a more subjective indicator should be added through which poor people participate in defining their own subjective situation of poverty. Yet this is very hard to measure on a large scale. Instead the national poverty line could be a more suitable indicator to take into account relative poverty and enlarge national ownership. This last measurement option is very relevant to the Post-2015 Development Agenda as reported by the UN High Level Panel (2013) and the Open Working Group (2014), but has not been further explored in this research for the reason of limited data availability. Instead, an additional poverty line of 2,50 dollar a day and the poverty gap have been employed to differentiate between levels of extreme poverty more effectively, thereby taking into account inequalities from the perspective of inclusive development.

Based on the interview results, hypotheses on the poverty reduction and the effectiveness of the MDGs have been tested through quantitative secondary data analysis. It has been confirmed that the results of poverty reduction have been very uneven from a geographical perspective, with

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<sup>35</sup> These different conceptualizations are summarized in the operationalization (table 1, p. 17)

especially Sub-Saharan Africa lagging behind. One primary means of implementation of the MDGs, development assistance, was found to be insignificant in relation to poverty reduction in this region. This however does not mean that this is insignificant to the lives of many people; it is this more subjective impact that is currently not assessed by the current targets and indicators of the MDGs. Nevertheless it should be acknowledged that the 'results' of the Millennium Development Goals are largely the consequence of economic growth in mainly China and India instead of factors directly related to the MDGs themselves. This conclusion has followed from the interview results and has been confirmed by secondary data analysis. The use of an additional poverty line confirmed that a substantial part of poverty reduction is due to picking the low hanging fruits of poverty, a phenomenon that appeared to be of greatest relevance to China and India.

This has important implications in the light of the changing geography of poverty (Kanbur & Sumner, 2012), of which the relevance has been confirmed by the research participants. Most poor people now live in middle-income countries which are not the main target of the current MDGs and development assistance. Economic growth has resulted in large numbers of poverty reduction, but this growth has not been fully inclusive. Although the depth of poverty has been reduced, the results of the secondary data-analysis confirm MDG criticism that growth is only partly trickling down. Furthermore within- and between-country inequalities have not decreased significantly between 2000 and 2008 based on the 1,25 dollar a day line that the MDGs have targeted. It can be concluded that structural inequalities have not been adequately addressed by the current MDGs. The view that these inequalities hinder successful poverty eradication has been confirmed by the interview results; therefore, this issue should be addressed by the Post-2015 Development Agenda in the future.

The universality of the Post-2015 Agenda holds great promise to target the 'new bottom billion' in middle-income countries such as China and India. Additionally the significance of the Development Goals could be enlarged by focusing more on economic growth, which has proven to most effective in reducing extreme poverty between 2000 and 2008. Through adequately addressing both poverty and inequality as part of the MDGs, more pro-poor, inclusive forms of growth can be promoted. For this purpose structural inequalities should be addressed, to ensure the inclusivity and thus the sustainability of such growth. As has been confirmed by the outcome documents of the Open Working Group (2014) and the UN High Level Panel (2013), these considerations are indeed central to the development of the Post-2015 Development Agenda.

Something not yet explicitly addressed in the potential Post-2015 Agenda as described in the aforementioned reports, is the depth of poverty. Although the poverty gap measure has been included as an indicator in the current MDGs, it has often been neglected in development reports. This is unfortunate, since this research has shown that addressing the depth of poverty is closely related to the reduction of inequalities and thus, to the promotion of inclusive growth. Therefore, adding the reduction of the depth of poverty as a future target seems a good way to focus more on eradicating most extreme forms of poverty instead of just the previously mentioned low-hanging fruits.

Additionally, data-disaggregation holds great promise to promote inclusive development. As has been shown by this research, differentiation is very important to ensure that all regions, groups and individuals are included in the development process. By the use of data-disaggregation, more interrelated dimensions of inclusive development could be monitored, evaluated and thus promoted more effectively as part of the Post-2015 Development Agenda.

In the current phase of this Post-2015 process, research and politics are mostly separated. Nonetheless this research has shown that the academic evaluation of the existing framework and poverty reduction leads to important recommendations concerning the Post-2015 Development Goals. It is in this light the letter from Wilkinson, Pickett, Sumner, Milanovic, Jolly et. al. (2013) about inequality has proven very relevant. From the existing critiques on the MDG and the following alternative conceptualization, measurement and result analysis of poverty reduction, it can be concluded that inequality should indeed be addressed in the future framework. This way, poverty eradication and inclusive development can be monitored and promoted more effectively as part of the Post-2015 Development Agenda. For this purpose, the eradication of the poverty of data itself can be an important contribution to the future eradication of poverty in all its forms.

### *Discussion*

In this discussion the research process and outcomes will be evaluated, resulting in recommendations for future research. During this research process, the limited data-availability posed great challenges to the quantitative secondary data analysis. When analysing the results of the MDGs, one can best measure development and poverty reduction from 2000 until a year as close possible to 2015. The data used in this analysis however deviated from this time-scope of the MDGs because of limited data availability. It has been acknowledged before that the strategies used to enlarge data availability and calculate values for additional years based on linear trends has resulted in data that will most likely deviate from reality. Additionally, the quality of the data available is not consistent. Although this does not appear from the dataset itself, the surveys of which this data are based are of variable quality. This problem affects poor countries disproportionately, since these countries have the littlest capacity to collect reliable data. This influenced the availability and quality of the data of Sub-Saharan Africa in particular; therefore, unfortunately the conclusions about this region should be interpreted with caution. The external validity and the options for generalization beyond the Sub-Saharan sample might be limited for the region as a whole, considering its internal differences as confirmed by the interview results.

Nevertheless, many effects were found to be significant for  $p > .001$  and often represented large effects. Since these results are based on a relatively small sample, this indicates that indeed conclusions can be drawn from these analyses that apply to development and poverty. Although it is not possible to make statements about causality based on the explanatory analysis, the interview results provided the theoretical explanation of many findings. This qualitative foundation of the

quantitative research method has proven to be very comprehensive and interdisciplinary in character. The mixed methods strategy has thus strongly contributed to the quality of the findings and conclusion. While some hypotheses based on the interviews were confirmed, others were rejected. The use of a wide variety of poverty measures and regional differentiation enabled more nuanced conclusions about poverty and the Millennium Development Goals and thus increased the reliability of the results.

Since this research has been limited in its time scope based on data availability, it would be highly interesting to repeat the quantitative analysis when data until 2015 is available. A more complete answer to the research questions can be found when the timeframe of the MDGs as a whole is taken into account; only then its impact and poverty reduction from 2000 until 2015 can be assessed completely. Hopefully, development of alternative measures and improved data availability will enable measuring poverty in a more multidimensional way in the future. It would be highly relevant to repeat the quantitative analysis with for instance the Multidimensional Poverty Index or a measure of weakly relative poverty. Additionally the possibility of data-disaggregation on national, regional, group and individual levels could provide more insight in the extent to which development is truly inclusive based on for instance gender, ethnicity, age and income.

Furthermore the findings of this research itself lead to suggestions for further research. The use of multiple poverty lines has been introduced in this research based on the interview results. Such a proposal is relatively new to both the academic and the political debate; although for this research this differentiation led to some interesting results, its role in assessing inequality requires further examination. It would be very interesting to see to what extent other MDG goals have been achieved by the poor based on both 1,25 and 2,50 dollar a day, resulting in an analysis of the inequality between these groups. This could ultimately inform a more effective monitoring and promotion of inclusive development as part of the Post-2015 Development Goals.

### *Reflection*

During the research process, keeping a journal enabled continued critical reflection upon my own work. This led to the insight that the initial research questions should be revised. My initial research ambitions proved to be too high, especially in the light of limited data availability. The revised research questions improved the focus and quality of this research significantly. Overall, the research process went as planned beforehand. Even though the facilitation of the secondary data analysis by the qualitative interviews led to some uncertainty about the analyses involved beforehand, this mixed methods strategy has proven to be very suitable to answer the research questions. Although the issue of limited data availability posed a great challenge to the quantitative analysis, this has been overcome by extensive data-preparation.

During the research process, my own interdisciplinary orientation has been strengthened significantly. This has been possible through the integration of different disciplinary perspectives of

the research participants, that surpassed the limits of my own interdisciplinary specialization. This integration has been facilitated by the use of ATLAS.ti. Even though I was not familiar with this software beforehand, it greatly enhanced coding and analysis possibilities. The use of an econometrical analysis technique furthermore enriched the statistical analysis. The outcome is a research that is truly interdisciplinary in its character.

All research participants were very interested in the research topic and willing to share their ideas on the Millennium Development Goals. The resulting contacts and interesting results have encouraged me to stay involved in the research topic through writing blogs at <https://dpc.uba.uva.nl/BeyondtheMDGs/> about the ongoing Post-2015 Development Goal process in the future. Furthermore I have been encouraged to apply for an internship at Foreign Affairs on the Post-2015 Development Agenda in the future, something that I will definitely consider during my Research Master's in International Development Studies.

## Bibliography

- Alkire, S. & Foster, J. (2011) Understandings and Misunderstandings of Multidimensional Poverty Measurement. *Journal of Economic Inequality*, 9: 289-314.
- Alkire, S. & Santos, M. E. (2010). *Acute Multidimensional Poverty: A New Index for Developing Countries*, Oxford Poverty and Human Development Initiative Working Paper Series, 38.
- Bluhm, R., De Crombrugghe, D. & Szirmai, A. (2014). Poor trends: The pace of poverty reduction after the Millennium Development Agenda. *UNU-MERIT Working Paper 2014-006*. Maastricht, United Nations University.
- Bluhm, R., De Crombrugghe, D. & Szirmai, A. (2013). The pace of poverty reduction: A fractional response approach. *UNU-MERIT Working Paper 2013-051*. Maastricht, United Nations University.
- Bryman, A. (2008). *Social Research Methods. 3th edition*. Oxford: Oxford University Press.
- Chen, S. & Ravallion, M. (2013). More Relatively-Poor People in a less Absolutely-Poor World. *Review of Income and Wealth*, 59(1).
- Clarke, M. (2012). Poverty Alleviation and Development. In D. Kingsbury, J. McKay, J. Hunt, M. McGillivray & M. Clarke. *International Development: Issues and Challenges* (2<sup>nd</sup> ed.) (pp. 219-244). Hampshire: Palgrave Macmillan.
- Field, A. (2009). *Discovering Statistics using SPSS. Third Edition*. London: Sage Publications.
- Fukuda-Parr, S. (2012). Reducing Inequality – The Missing MDG: A Content Review of PRSPs and Bilateral Donor Policy Statements, *IDS Bulletin*, 41(1): 26-45.
- Giovannini, E. (2013). Using ‘Equitable and Sustainable Wellbeing’ to Build the Post-MDGs Framework. *IDS Bulletin Volume 44*(5-6): 89-96.
- Gore, C. (2010). The MDG Paradigm, Productive Capacities and the Future of Poverty Reduction. *IDS Bulletin*, 41(1): 70-79.
- Greig, A., Hulme, D. & Turner, M. (2007) *Challenging Global Inequality: Development Theory and Practice in the 21<sup>st</sup> Century* (pp. 30-52). Hampshire: Palgrave Macmillan.
- Hossain, A. (2000): Convergence of Per Capita Output Levels Across Regions of Bangladesh 1982-97. *IMF Working Paper 21*.
- Jahan, S. (2010). The MDGs Beyond 2015. *IDS Bulletin*, 41(1): 70-79.
- Jolly, R. (2010). The MDGs in Historical Perspective. *IDS Bulletin*, 41(1): 48-50.
- Kanbur, R. & Sumner, A. (2012). Poor Countries or Poor People: Development Assistance and the New Geography of Global Poverty. *Journal of International Development*, 24: 686–695.

- McGillivray, M. (2012). What is development? In D. Kingsbury, J. McKay, J. Hunt, M. McGillivray & M. Clarke. *International Development: Issues and Challenges* (2nd ed.) (pp. 23-52). Hampshire: Palgrave Macmillan.
- McKay, J. (2012). Reassessing Development Theory. In D. Kingsbury, J., McKay, J. Hunt, M. McGillivray & M. Clarke. *International Development: Issues and Challenges* (2nd ed.) (pp. 53-78). Hampshire: Palgrave Macmillan.
- Milanovic, B. (2006). Global Income Inequality: What It Is And Why It Matters. *Economic and Social Affairs*, 26.
- Ministry of Foreign Affairs (2007). *Project 2015: Millennium ontwikkelingsdoelen in 2015*.
- Nayyar, D. (2013). The Millennium Development Goals Beyond 2015: Old Frameworks and New Constructs. *Journal of Human Development and Capabilities*, 14(3): 371 –392.
- Ravallion, M. (2002). Have We Already Met the Millennium Development Goal for Poverty? *Economic and Political Weekly*, 37(46): 4638-4645.
- Rittel, H.W.J. & Webber, M.M. (1973). Dilemmas in a General Theory of Planning. *Policy Sciences*, 4: 155-169.
- Rutting, De Roo, Blad, Post & De Greef (2014). *An Introduction to Interdisciplinary Research: Pilot Version*. Institute for Interdisciplinary Studies, University of Amsterdam.
- Sachs, J. D. (2005). *The End of Poverty: Economic Possibilities for our Time*. New York: Penguin Books.
- Sen, A. (1999) *Development as Freedom*. Oxford: Oxford University Press.
- Stiglitz, J. E., Sen, A. & Fitoussi, J-P. (2010). *Mismeasuring our lives: Why GDP doesn't add up*. The Report by the Commission on the Measurement of Economic Performance and Social Progress. New York: The New Press.
- Sumner, A. & Tiwari, M. (2009). After 2015: What are the Ingredients of an 'MDG-plus' Agenda for Poverty Reduction? *Journal of International Development*, 21: 834–843.
- Sumner, A. (2007). Meaning versus Measurement: Why Do 'Economic' Indicators of Poverty Still Predominate? *Development in Practice*, 17(1): 4-13.
- United Nations (2013). *The Millennium Development Goals Report 2013*. New York. Retrieved on 2 May 2014, from <http://www.un.org/millenniumgoals/pdf/report-2013/mdg-report-2013-english.pdf>

United Nations (2000). United Nations Millennium Declaration. Resolution 55/2 adopted by the General Assembly. Retrieved on 3 May 2014, from [http://www.un.org/ga/search/view\\_doc.asp?symbol=A/RES/55/2](http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/55/2)

United Nations High Level Panel (2013). *A New Global Partnership: Eradicate Poverty and Transform Economies Through Sustainable Development*. The Report of the High-Level Panel of Eminent Persons on the Post-2015 Development Agenda.

UN System Task Team on the Post-2015 UN Development Agenda (2012). *Addressing inequalities: The heart of the post-2015 agenda and the future we want for all*. Thematic Think Piece. Retrieved on 6 May 2014, from [http://www.un.org/millenniumgoals/pdf/Think%20Pieces/10\\_inequalities.pdf](http://www.un.org/millenniumgoals/pdf/Think%20Pieces/10_inequalities.pdf)

Vandemoortele, J. (2011). If not the Millennium Development Goals, then what? *Third World Quarterly*, 32(1): 9-25.

Wilkinson, Pickett, Sumner, Milanovic, Jolly et. al. (2013). Letter to the High Level Panel on Inequality in the Post-2015 Agenda. Retrieved 3 February 2013, from <http://post2015.files.wordpress.com/2013/03/inequality-letter-final-190313.pdf>

### **Digital Sources**

Development Policy Centre. (2014). Process feeding into the Post-MDG Agenda. Retrieved 17 May 2014 via <http://devpolicy.org/wp-content/uploads/2014/04/Process-feeding-into-the-post-MDG-agenda.png>

United Nations Statistics Division (2008). Official List of MDG indicators. Retrieved on 9 February 2014, from <http://unstats.un.org/unsd/mdg/Host.aspx?Content=Indicators/OfficialList.htm>

Open Working Group. Working Document for 5 – 9 May Session of Open Working Group. Retrieved on 13 May 2014, from [http://sustainabledevelopment.un.org/content/documents/3686WorkingDoc\\_0205\\_additional supporters.pdf](http://sustainabledevelopment.un.org/content/documents/3686WorkingDoc_0205_additional supporters.pdf)

## Appendix 1: Official list of Millennium Development Goals, targets & indicators

As reported by the United Nations Statistics Division (2014).

Millennium Development Goals (MDGs)	
Goals and Targets (from the Millennium Declaration)	Indicators for monitoring progress <sup>gdp</sup>
<b>Goal 1: Eradicate extreme poverty and hunger</b>	
Target 1.A: Halve, between 1990 and 2015, the proportion of people whose income is less than 1,25 dollar a day	1.10 Proportion of population below \$1,25 (PPP) per day <sup>36</sup> 1.11 Poverty gap ratio 1.12 Share of poorest quintile in national consumption
Target 1.B: Achieve full and productive employment and decent work for all, including women and young people	1.13 Growth rate of GDP per person employed 1.14 Employment-to-population ratio 1.15 Proportion of employed people living below \$1 (PPP) per day 1.16 Proportion of own-account and contributing family workers in total employment
Target 1.C: Halve, between 1990 and 2015, the proportion of people who suffer from hunger	1.17 Prevalence of underweight children under-five years of age 1.18 Proportion of population below minimum level of dietary energy consumption
<b>Goal 2: Achieve universal primary education</b>	
Target 2.A: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling	2.1 Net enrolment ratio in primary education 2.2 Proportion of pupils starting grade 1 who reach last grade of primary 2.3 Literacy rate of 15-24 year-olds, women and men
<b>Goal 3: Promote gender equality and empower women</b>	
Target 3.A: Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015	3.1 Ratios of girls to boys in primary, secondary and tertiary education 3.2 Share of women in wage employment in the non-agricultural sector 3.3 Proportion of seats held by women in national parliament
<b>Goal 4: Reduce child mortality</b>	
Target 4.A: Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate	4.1 Under-five mortality rate 4.2 Infant mortality rate 4.3 Proportion of 1 year-old children immunised against measles
<b>Goal 5: Improve maternal health</b>	
Target 5.A: Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio	5.1 Maternal mortality ratio 5.2 Proportion of births attended by skilled health personnel
Target 5.B: Achieve, by 2015, universal access to reproductive health	5.3 Contraceptive prevalence rate 5.4 Adolescent birth rate 5.5 Antenatal care coverage (at least one visit and at least four visits) 5.6 Unmet need for family planning
<b>Goal 6: Combat HIV/AIDS, malaria and other diseases</b>	
Target 6.A: Have halted by 2015 and begun to reverse the spread of HIV/AIDS	6.1 HIV prevalence among population aged 15-24 years 6.2 Condom use at last high-risk sex 6.3 Proportion of population aged 15-24 years with comprehensive correct knowledge of HIV/AIDS 6.4 Ratio of school attendance of orphans to school attendance of non-orphans aged 10-14 years
Target 6.B: Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it	6.5 Proportion of population with advanced HIV infection with access to antiretroviral drugs
Target 6.C: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases	6.6 Incidence and death rates associated with malaria 6.7 Proportion of children under 5 sleeping under insecticide-treated bed-nets 6.8 Proportion of children under 5 with fever who are treated with appropriate anti-malarial drugs 6.9 Incidence, prevalence and death rates associated with tuberculosis

<sup>36</sup> For monitoring country poverty trends, indicators based on national poverty lines should be used, where available.

	6.10 Proportion of tuberculosis cases detected and cured under directly observed treatment short course
<b>Goal 7: Ensure environmental sustainability</b>	
Target 7.A: Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources	7.1 Proportion of land area covered by forest 7.2 CO2 emissions, total, per capita and per \$1 GDP (PPP) 7.3 Consumption of ozone-depleting substances 7.4 Proportion of fish stocks within safe biological limits
Target 7.B: Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss	7.5 Proportion of total water resources used 7.6 Proportion of terrestrial and marine areas protected 7.7 Proportion of species threatened with extinction
Target 7.C: Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation	7.8 Proportion of population using an improved drinking water source 7.9 Proportion of population using an improved sanitation facility
Target 7.D: By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers	7.10 Proportion of urban population living in slums <sup>37</sup>
<b>Goal 8: Develop a global partnership for development</b>	
Target 8.A: Develop further an open, rule-based, predictable, non-discriminatory trading and financial system  Includes a commitment to good governance, development and poverty reduction – both nationally and internationally	<i>Some of the indicators listed below are monitored separately for the least developed countries (LDCs), Africa, landlocked developing countries and small island developing States.</i> <u>Official development assistance (ODA)</u> 8.1 Net ODA, total and to the least developed countries, as percentage of OECD/DAC donors' gross national income 8.2 Proportion of total bilateral, sector-allocable ODA of OECD/DAC donors to basic social services (basic education, primary health care, nutrition, safe water and sanitation) 8.3 Proportion of bilateral official development assistance of OECD/DAC donors that is untied 8.4 ODA received in landlocked developing countries as a proportion of their gross national incomes 8.5 ODA received in small island developing States as a proportion of their gross national incomes
Target 8.B: Address the special needs of the least developed countries  Includes: tariff and quota free access for the least developed countries' exports; enhanced programme of debt relief for heavily indebted poor countries (HIPC) and cancellation of official bilateral debt; and more generous ODA for countries committed to poverty reduction	<u>Market access</u> 8.6 Proportion of total developed country imports (by value and excluding arms) from developing countries and least developed countries, admitted free of duty 8.7 Average tariffs imposed by developed countries on agricultural products and textiles and clothing from developing countries 8.8 Agricultural support estimate for OECD countries as a percentage of their gross domestic product 8.9 Proportion of ODA provided to help build trade capacity
Target 8.C: Address the special needs of landlocked developing countries and small island developing States (through the Programme of Action for the Sustainable Development of Small Island Developing States and the outcome of the twenty-second special session of the General Assembly)	<u>Debt sustainability</u> 8.10 Total number of countries that have reached their HIPC decision points and number that have reached their HIPC completion points (cumulative) 8.11 Debt relief committed under HIPC and MDRI Initiatives 8.12 Debt service as a percentage of exports of goods and services
Target 8.D: Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term	8.13 Proportion of population with access to affordable essential drugs on a sustainable basis
Target 8.E: In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries	
Target 8.F: In cooperation with the private sector, make available the benefits of new technologies, especially information and communications	8.14 Fixed-telephone subscriptions per 100 inhabitants 8.15 Mobile-cellular subscriptions per 100 inhabitants 8.16 Internet users per 100 inhabitants

<sup>37</sup> The actual proportion of people living in slums is measured by a proxy, represented by the urban population living in households with at least one of the four characteristics: (a) lack of access to improved water supply; (b) lack of access to improved sanitation; (c) overcrowding (3 or more persons per room); and (d) dwellings made of non-durable material.

## Appendix 2: Summary High Level Panel Report: goals & targets

As reported by the High Level Panel on Eminent Persons on the Post-2015 Millennium Development Goal Agenda (2013)

<sup>1</sup> Candidates for global minimum standards, including 'zero' goals.

<sup>2</sup> Indicators to be disaggregated.

<sup>3</sup> Targets require further technical work to find appropriate indicators.



### 1. End Poverty

1a. Bring the number of people living on less than \$1.25 a day to zero **and** reduce by x% the share of people living below their country's 2015 national poverty line <sup>1,2</sup>

1b. Increase by x% the share of women and men, communities, and businesses with secure rights to land, property, and other assets <sup>2,3</sup>

1c. Cover x% of people who are poor and vulnerable with social protection systems <sup>2,3</sup>

1d. Build resilience and reduce deaths from natural disasters by x% <sup>2</sup>



### 2. Empower Girls and Women and Achieve Gender Equality

2a. Prevent and eliminate all forms of violence against girls and women <sup>1,2,3</sup>

2b. End child marriage <sup>1,2</sup>

2c. Ensure equal right of women to own and inherit property, sign a contract, register a business and open a bank account <sup>1,2</sup>

2d. Eliminate discrimination against women in political, economic, and public life <sup>1,2,3</sup>



### 3. Provide Quality Education and Lifelong Learning

3a. Increase by x% the proportion of children able to access and complete pre-primary education <sup>2</sup>

3b. Ensure every child, regardless of circumstance, completes primary education able to read, write and count well enough to meet minimum learning standards <sup>1,2</sup>

3c. Ensure every child, regardless of circumstance, has access to lower secondary education and increase the proportion of adolescents who achieve recognised and measurable learning outcomes to x% <sup>1,2</sup>

3d. Increase the number of young and adult women and men with the skills, including technical and vocational, needed for work by x% <sup>2,3</sup>



### 4. Ensure Healthy Lives

4a. End preventable infant and under-5 deaths <sup>1,2</sup>

4b. Increase by x% the proportion of children, adolescents, at-risk adults and older people that are fully vaccinated <sup>1,2</sup>

4c. Decrease the maternal mortality ratio to no more than x per 100,000 <sup>1,2</sup>

4d. Ensure universal sexual and reproductive health and rights <sup>1,2</sup>

4e. Reduce the burden of disease from HIV/AIDS, tuberculosis, malaria, neglected tropical diseases and priority non-communicable diseases <sup>2</sup>



### 5. Ensure Food Security and Good Nutrition

5a. End hunger and protect the right of everyone to have access to sufficient, safe, affordable, and nutritious food <sup>1,2</sup>

5b. Reduce stunting by x%, wasting by y%, and anemia by z% for all children under five <sup>1,2</sup>

5c. Increase agricultural productivity by x%, with a focus on sustainably increasing smallholder yields and access to irrigation <sup>3</sup>

5d. Adopt sustainable agricultural, ocean and freshwater fishery practices and rebuild designated fish stocks to sustainable levels <sup>1</sup>

5e. Reduce postharvest loss and food waste by x% <sup>3</sup>



### 6. Achieve Universal Access to Water and Sanitation

6a. Provide universal access to safe drinking water at home, and in schools, health centres, and refugee camps <sup>1,2</sup>

6b. End open defecation and ensure universal access to sanitation at school and work, and increase access to sanitation at home by x% <sup>1,2</sup>

6c. Bring freshwater withdrawals in line with supply and increase water efficiency in agriculture by x%, industry by y% and urban areas by z%

6d. Recycle or treat all municipal and industrial wastewater prior to discharge <sup>1,3</sup>



### 7. Secure Sustainable Energy

- 7a. Double the share of renewable energy in the global energy mix
- 7b. Ensure universal access to modern energy services <sup>1,2</sup>
- 7c. Double the global rate of improvement in energy efficiency in buildings, industry, agriculture and transport
- 7d. Phase out inefficient fossil fuel subsidies that encourage wasteful consumption <sup>1,3</sup>



### 8. Create Jobs, Sustainable Livelihoods, and Equitable Growth

- 8a. Increase the number of good and decent jobs and livelihoods by x <sup>2</sup>
- 8b. Decrease the number of young people not in education, employment or training by x% <sup>2</sup>
- 8c. Strengthen productive capacity by providing universal access to financial services and infrastructure such as transportation and ICT <sup>1,2,3</sup>
- 8d. Increase new start-ups by x and value added from new products by y through creating an enabling business environment and boosting entrepreneurship <sup>2,3</sup>



### 9. Manage Natural Resource Assets Sustainably

- 9a. Publish and use economic, social and environmental accounts in all governments and major companies <sup>1</sup>
- 9b. Increase consideration of sustainability in x% of government procurements <sup>3</sup>
- 9c. Safeguard ecosystems, species and genetic diversity
- 9d. Reduce deforestation by x% and increase reforestation by y%
- 9e. Improve soil quality, reduce soil erosion by x tonnes and combat desertification



### 10. Ensure Good Governance and Effective Institutions

- 10a. Provide free and universal legal identity, such as birth registrations <sup>1,2</sup>
- 10b. Ensure people enjoy freedom of speech, association, peaceful protest and access to independent media and information <sup>1,3</sup>
- 10c. Increase public participation in political processes and civic engagement at all levels <sup>2,3</sup>
- 10d. Guarantee the public's right to information and access to government data <sup>1</sup>
- 10e. Reduce bribery and corruption and ensure officials can be held accountable <sup>3</sup>



### 11. Ensure Stable and Peaceful Societies

- 11a. Reduce violent deaths per 100,000 by x and eliminate all forms of violence against children <sup>1,2,3</sup>
- 11b. Ensure justice institutions are accessible, independent, well-resourced and respect due-process rights <sup>1,2,3</sup>
- 11c. Stem the external stressors that lead to conflict, including those related to organised crime <sup>3</sup>
- 11d. Enhance the capacity, professionalism and accountability of the security forces, police and judiciary <sup>3</sup>



### 12. Create a Global Enabling Environment and Catalyse Long-Term Finance

- 12a. Support an open, fair and development-friendly trading system, substantially reducing trade-distorting measures, including agricultural subsidies, while improving market access of developing country products <sup>3</sup>
- 12b. Implement reforms to ensure stability of the global financial system and encourage stable, long-term private foreign investment <sup>3</sup>
- 12c. Hold the increase in global average temperature below 2° C above pre-industrial levels, in line with international agreements
- 12d. Developed countries that have not done so to make concrete efforts towards the target of 0.7% of gross national product (GNP) as official development assistance to developing countries and 0.15 to 0.20% of GNP of developed countries to least developed countries; other countries should move toward voluntary targets for complementary financial assistance
- 12e. Reduce illicit flows and tax evasion and increase stolen-asset recovery by \$x <sup>3</sup>
- 12f. Promote collaboration on and access to science, technology, innovation, and development data <sup>3</sup>

### **Appendix 3: Summary Working Document Open Working Group**

This document provides a summary of the most recent working document of the Open Working Group (5-9 May 2014), in which focus areas (potential goals) are summarized. Additionally, the possible targets for a future ‘MDG1’ are included as part of the first focus area.

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Focus area 1: Poverty eradication, building shared prosperity and promoting equality: End poverty in all its forms everywhere

- a) eradicate extreme poverty by 2030
- b) reduce the proportion of people living below national poverty lines by 2030
- c) by 2030 implement nationally appropriate social protection measures including floors, with focus on coverage of the most marginalized
- d) build resilience of the poor and reduce by x% deaths and economic losses related to disasters
- e) achieve full and productive employment for all, including women and young people
- f) ensure equality of economic opportunity for all women and men, including secure rights to own land, property and other productive assets and access to financial services for all women and men

Focus area 2: Sustainable agriculture, food security and nutrition: End hunger and improve nutrition for all through sustainable agriculture and improved food systems

Focus area 3: Health and population dynamics: Healthy life at all ages for all

Focus area 4: Education and life-long learning: Provide quality education and life-long learning for all

Focus area 5: Gender equality and women’s empowerment: Attain gender equality and women’s empowerment everywhere

Focus area 6: Water and sanitation: Water and sanitation for a sustainable world

Focus area 7: Energy: Ensure access to affordable, sustainable, and reliable modern energy for all

Focus area 8: Economic growth, employment and infrastructure: Promote sustainable, inclusive and sustained economic growth and decent jobs for all

Focus area 9: Industrialization and promoting equality among nations: Promote sustainable industrialization and equality among nations

Focus area 10: Sustainable cities and human settlements: Build inclusive, safe and sustainable cities and human settlements

- Focus area 11: Sustainable Consumption and Production: Promote sustainable consumption and production patterns
- Focus area 12: Climate change: Take urgent and significant action to mitigate and adapt to climate change
- Focus area 13: Conservation and sustainable use of marine resources, oceans and seas: Take urgent and significant actions for the conservation and sustainable use of marine resources, oceans and seas
- Focus area 14: Ecosystems and biodiversity: Protect and restore terrestrial ecosystems and halt all biodiversity loss
- Focus area 15: Means of implementation/Global partnership for sustainable development: Strengthen global partnership for sustainable development
- Focus area 16: Peaceful and inclusive societies, rule of law and capable institutions: Peaceful and inclusive societies, rule of law and capable institutions

#### Appendix 4: List of interview participants

<b>Name</b>	<b>Profession</b>	<b>Disciplinary Specialization</b>
<b>Nicky Pouw</b>	Assistant Professor at Msc. International Development Studies, University of Amsterdam	Development Economics
<b>Dr. Robert Jan Van der Veen</b>	Teacher Political Philosophy at University of Amsterdam	Political Philosophy
	National Consultation Post 2015 Global Development Agenda at NJR (National Youth Council)	
<b>Saskia Tjeerdsma</b>	Policy Advisor at the Dutch Ministry of Foreign Affairs, post-2015	Policy (foreign affairs)
<b>Anne Poorta</b>	Senior Policy Advisor at the Dutch Ministry of Foreign Affairs, post-2015	Policy and Diplomacy (foreign affairs)
<b>Jilt van Schayik</b>	UN Youth Ambassador NJR: General Assembly	Youth, business, United Nations
<b>Ronald Kampherbeek</b>	Former employee at NCDO (National Committee for international Cooperation and Sustainable Development), communication specialist	Communication
<b>Tamira Gunzburg</b>	Deputy Director at ONE Brussels (international campaigning and advocacy organization with the aim to end extreme poverty and preventable disease, particularly in Africa)	Advocacy, NGO, Campaigning
<b>Richard Bluhm</b>	PhD at Maastricht Graduate School of Governance and UNU-MERIT (United Nations University - Maastricht Economic and Social Research Institute on Innovation and Technology)	Econometrics and Governance

Note: this interview list is in chronological order of conduction

## Appendix 5: Interview guide

**Notes:** the language of this interview (English/Dutch) will depend on the native language of the Interviewee

These interviews will be semi-structured and thus flexible; topics and questions should be seen as a general outline of the interview

### Introduction

Welcome and thanks, short introduction of myself, research and aims (not including too much criticism/expectations), time planning (approx. 1 hour); installing recording device/microphone: confidentiality

### Facesheet information interviewee (to fill in afterwards by interviewer):

Name: \_\_\_\_\_  
Age: \_\_\_\_\_  
Gender: \_\_\_\_\_  
Occupation: \_\_\_\_\_  
Experience: \_\_\_\_\_  
E-mail/contact: \_\_\_\_\_

### Background interviewee (will influence the precise questions)

In specific in relation to development/poverty/MDG/inequality/measurement

Additional: background and goals of the professional organization the interviewee is involved in

Could you explain how you would describe the concept of (inclusive) **development**? (modernistic, dependency, capability?) → general idea of views

### Poverty

What does the concept of poverty mean to you? How would you describe it?

- Objective/subjective
- Narrow/broad
- Absolute/relative (inequality?)

→ measurement implications? HDI, GDP/capita, PPP, Gini/Palma, level of measurement?

Based on this, what do you see as current relevant developments?

- on the field of poverty/inclusive development
- broader trends (inequalities?)

### Millennium Development Goals

What do you think the significance of the Millennium Development Goals is in relation to the issue of poverty? What is your opinion on their effectiveness?

**Prompt:** Current MDG's and specific targets and indicators of MDG (appendix 1)

What is your opinion on this framework, and in specific on MDG1 and its targets and indicators? Is it inclusive? What are the strengths and shortcomings? What could or should be different in the future?

Some critiques will be explained shortly. What is your opinion on this?

- The MDG's do not address inequalities adequately  
(if agreed, what is the cause of these inequalities (individualist/structuralist)? How should they do that in the future? Is including a Gini like coefficient an option? Or the poverty gap ratio? Is this possible from a political perspective?)
- Current measurement is flawed by a tyranny of averages and relative goals  
(if agreed, how can this be changed in the future?)
- Local ownership is lacking  
(if agreed, how can this be changed in the future?)

How should poverty be addressed and measured in the **Post-2015 framework** to promote inclusive development?

**Prompt:** outline possible Post-2015 MDG framework as proposed by the High Level Panel and specific targets and indicators of MDG1 (appendix 2)

(note: in the interviews with policy advisors from foreign affairs the working document of the Open Working Group is used as an additional prompt)

What do you think of this framework? Does it adequately address your previous mentioned concerns?

What should be changed according to you?

What should definitely be included in an alternative measurement instrument of poverty, aside from both frameworks?

Any other remarks on these interview topics?

**End:** thanks, explain use of data, invite for crowdfindings activity (after explanation)

## Appendix 6: Code families and codes

### Code Family: Inclusive Development

Created: 2014-05-15 18:52:18 (Super)

Codes (46): [(inclusive) development] [(sustainable) assets] [backwash effects] [capacities] [catalytic impact] [development as a dynamic process] [development as a never ending process] [development assistance] [development policy] [economic growth] [education] [food security] [good governance] [governance] [growth is distribution neutral] [health] [importance domestic resources] [importance of not skipping steps] [income distribution] [industrial transformation] [investments] [Kuznets curve] [local impact] [local ownership] [middle-class] [moving out of poverty] [national ownership] [need for political participation and influence] [opportunities] [personal development] [poverty eradication] [poverty reduction] [poverty reduction as public good] [pro-poor policy] [problematization inequality] [progress] [public-private partnerships] [redistribution] [social choice] [social protection] [structural change] [sustainable development] [technology] [trickle-down] [using your talents] [youth]

Quotation(s): 424

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### Code Family: Inequality

Created: 2014-05-15 14:44:49 (Super)

Codes (31): [between-country comparison] [dependency] [dimensions of inequality] [exclusion] [gender inequality] [gini] [gini: - communication/understanding] [gini: - comparison] [growing inequalities] [growth is distribution neutral] [importance of addressing inequality] [income distribution] [income inequality] [inequality] [inequality can be okay] [inequality in MDGs] [intercountry comparison] [lack of addressing inequality in MDGs] [liberalization] [measuring inequality] [no explicit inequality goal needed] [opportunities] [political inequality] [poorest quintile ratio] [potential discrepancy development absolute and relative poverty] [problematization inequality] [reproduction of inequalities] [social choice] [two dollar line] [within-household inequality] [within country comparison]

Quotation(s): 275

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### Code Family: Interdisciplinary perspectives

Created: 2014-05-25 22:04:50 (Super)

Codes (10): [national NJR MDG consultation] [perspective: business] [perspective: development economics] [perspective: NCDO: communication] [perspective: on the ground experience] [perspective: ONE campaign] [perspective: policy advisor at foreign affairs, post-2015] [perspective: political philosophy] [perspective: public policy/economics research] [PL: arbitrary decisions]

Quotation(s): 33

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### Code Family: Measurement

Created: 2014-05-15 14:44:52 (Super)

Codes (63): [1990] [alternative measurement] [alternative poverty rate expectations] [assumption] [between-country comparison] [composite index] [context-specific] [country-specific goals] [data availability] [data disaggregation] [data poverty] [data revolution] [decentralisation] [depth of poverty] [discrepancy causes and consequences in measurement] [gini: - communication/understanding] [gini: - comparison] [HDI: data aggregation] [human development index] [importance of addressing inequality] [income measurement] [intercountry comparison] [ladder of life] [limited aggregation possibilities] [measurement bias] [measurement difficulty] [measurement of consumption] [measurement: need for comparison] [measuring absolute poverty] [measuring depth of poverty] [measuring inequality] [measuring MDGs] [measuring objective poverty] [measuring relative poverty] [measuring subjective poverty] [middle-class] [MPI: little policy relevance] [multidimensional poverty index] [multiple poverty lines] [narrow measurement] [national poverty lines (NPL)] [need for a mixed methods approach] [need for a participatory/subjective approach] [need for complementarity] [need for differentiation] [need for political participation and influence] [no causal relationship/many factors] [NPL: -

international comparison] [NPL: + information] [PL: - conceptual justification] [PL: - little information] [PL: - measurement difficulty] [PL: + international comparison] [poor trends] [population size matters] [potential discrepancy development objective and subjective poverty] [poverty gap ratio] [poverty line (PL)] [poverty measurement] [poverty monitoring] [problematization objective/expert vision] [two dollar line] [within country comparison]  
Quotation(s): 503

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Code Family: Millennium Development Goals

Created: 2014-05-15 14:44:36 (Super)

Codes (70): [(international) agendasetting] [1990] [absolute goals] [accountability] [aspirational goals] [awareness] [bottom billion] [cherry picking] [content MDGs (2)] [development assistance] [development policy] [eradicating extreme poverty] [function of relative goals] [halfway goals] [health] [importance of addressing inequality] [inequality in MDGs] [intergovernmental] [international advocacy] [international agendasetting] [international campaigning] [international commitment] [international consensus] [international dialogue] [interrelated goals] [lack of addressing inequality in MDGs] [lacking consensus] [lacking responsibility] [lessons learnt from the MDGs] [limited impact] [limited national ownership] [limited public awareness about MDGs] [local impact] [local ownership] [low-hanging fruits] [MDG context] [MDG criticism: goal in itself] [MDG criticism: means of implementation lacking] [MDG criticism: unclear what MDG1 entails] [MDG history] [MDG shortcoming] [MDG1] [MDGs as a colonial concept] [MDGs as a compromise] [MDGs as political success] [means of implementation] [Millennium Declaration] [Millennium Development Goals] [multilateral process] [narrative] [national ownership] [need for simple, understandable MDGs] [participatory approach not suitable] [perverse stimulus] [post-2015 Millennium Development Goals] [potential improvement] [poverty eradication] [poverty reduction] [poverty reduction as public good] [progress] [reaching the MDGs] [relative goals] [respecting complexity] [some possible impact] [substantial impact] [support] [top down] [undemocratic] [uneven results] [United Nations]  
Quotation(s): 772

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Code Family: Post-2015 MDGs

Created: 2014-05-15 14:45:34 (Super)

Codes (74): [(international) agendasetting] [accountability] [alternative poverty rate expectations] [aspirational goals] [assumption] [awareness] [bottom-up] [bottom billion] [catalytic impact] [consistency] [continuing trend towards 2030] [country-specific goals] [criticism on SDGs] [data revolution] [debate on poverty line] [decentralisation] [development assistance] [development policy] [division negotiations/measurement expertise] [economic growth] [eradicating extreme poverty] [financial considerations] [function of relative goals] [good governance] [health] [High Level Panel Report] [importance of addressing inequality] [importance of not skipping steps] [intergovernmental] [international agendasetting] [international commitment] [international consensus] [international dialogue] [interrelated goals] [lacking consensus] [lessons learnt from the MDGs] [limiting specific group policies] [local ownership] [MDG potential] [MDG1] [means of implementation] [measuring inequality] [narrative] [national ownership] [national sovereignty] [need for a participatory/subjective approach] [need for focused MDGs] [need for simple, understandable MDGs] [need for universality] [negotiations] [no explicit inequality goal needed] [Open Working Group] [peace and security] [perverse stimulus] [poor trends] [possible post-2015 goals] [possible post-2015 indicators] [possible post-2015 targets] [post-2015 MDG debate] [potential improvement] [poverty eradication] [poverty reduction] [prioritization] [public-private partnerships] [relative goals] [respecting complexity] [support] [sustainable development] [technology] [transparency] [UN Youth Representative] [United Nations] [World Bank] [youth]  
Quotation(s): 902

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Code Family: Poverty Conceptualization

Created: 2014-05-15 14:44:44 (Super)

Codes (27): [absolute goals] [absolute poverty] [access] [basic needs approach] [bottom billion] [capacities] [causes of poverty] [changing geography of poverty] [context-specific] [depth of poverty] [livelihood] [multidimensional approach] [need for a participatory/subjective approach] [potential discrepancy development absolute and relative poverty] [potential discrepancy development objective and subjective poverty] [poverty] [poverty as a dynamic process] [poverty as a negative phenomenon] [poverty as lack of income] [poverty characterization] [powerlessness] [problematization objective/expert vision] [relative poverty] [subjective poverty] [theory: assistance in poverty based on individual action and responsibility] [weakly relative poverty] [wellbeing]

Quotation(s): 258

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Code Family: Regions

Created: 2014-05-15 14:46:36 (Super)

Codes (10): [accountability] [Africa] [African country] [BRICS] [China] [EU perspective] [Global South] [India] [Sub-Saharan Africa] [United States]

Quotation(s): 109

## Appendix 7: Sample information and calculation

Table: Sample information and calculation

Country	Region	Income Group	Calculation 2000	Calculation 2008
Uganda	Sub-Saharan Africa	Low-Income Economy	1999-2002	2006-2009
Burkina Faso	Sub-Saharan Africa	Low-Income Economy	1998-2003	2003-2009
Niger	Sub-Saharan Africa	Low-Income Economy	1994-2005	2008
Malawi	Sub-Saharan Africa	Low-Income Economy	1998-2004	2004-2010
Central African Rep.	Sub-Saharan Africa	Low-Income Economy	1992-2003	2008
Madagascar	Sub-Saharan Africa	Low-Income Economy	1999-2001	2005-2010
Mali	Sub-Saharan Africa	Low-Income Economy	1994-2001	2006-2010
Mauritania	Sub-Saharan Africa	Lower-Middle Income Economy	2000	2008
Cote D'ivoire	Sub-Saharan Africa	Lower-Middle Income Economy	1998-2002	2008
Zambia	Sub-Saharan Africa	Lower-Middle Income Economy	1998-2003	2006-2010
Nigeria	Sub-Saharan Africa	Lower-Middle Income Economy	1996-2004	2004-2010
Swaziland	Sub-Saharan Africa	Lower-Middle Income Economy	1995-2001	2001-2010
Mozambique	Sub-Saharan Africa	Lower-Middle Income Economy	1996-2003	2008
South Africa	Sub-Saharan Africa	Upper Middle Income Economy	2000	2006-2009
Angola	Sub-Saharan Africa	Upper Middle Income Economy	2000	2000-2009
Cambodia	East Asia and Pacific	Low-Income Economy	1994-2004	2008
Bangladesh	South Asia	Low-Income Economy	2000	2005-2010
Nepal	South Asia	Low-Income Economy	1996-2003	2003-2010
Philippines	East Asia and Pacific	Lower-Middle Income Economy	2000	2006-2009
Indonesia	East Asia and Pacific	Lower-Middle Income Economy	1999-2002	2008
Vietnam	East Asia and Pacific	Lower-Middle Income Economy	1998-2002	2008
Lao	East Asia	Lower-Middle Income Economy	1997-2002	2008
Sri Lanka	East Asia and Pacific	Lower-Middle Income Economy	1996-2002	2007-2010
Pakistan	East Asia and Pacific	Lower-Middle Income Economy	1999-2002	2008
India	East Asia and Pacific	Lower-Middle Income Economy	1994-2005	2005-2010
Thailand	East Asia and Pacific	Upper Middle Income Economy	2000	2008
China	East Asia and Pacific	Upper Middle Income Economy	1999-2002	2008
Paraguay	Latin America	Lower-Middle Income Economy	1999-2001	2008
El Salvador	Latin America	Lower-Middle Income Economy	1999-2001	2008
Honduras	Latin America	Lower-Middle Income Economy	1999-2001	2008
Bolivia	Latin America	Lower-Middle Income Economy	2000	2008
Argentina	Latin America	Upper Middle Income Economy	2000	2008
Dominican Republic	Latin America	Upper Middle Income Economy	2000	2008
Costa Rica	Latin America	Upper Middle Income Economy	2000	2008
Mexico	Latin America	Upper Middle Income Economy	2000	2008
Brazil	Latin America	Upper Middle Income Economy	1999-2001	2008
Peru	Latin America	Upper Middle Income Economy	2000	2008
Panama	Latin America	Upper Middle Income Economy	1998-2001	2006-2009
Colombia	Latin America	Upper Middle Income Economy	2000	2008
Ecuador	Latin America	Upper Middle Income Economy	2000	2008
Uruguay	Latin America	High Income Economy	1989-2006	2008
Chile	Latin America	High Income Economy	2000	2006-2009
Kyrgyzstan	Europe and Central Asia	Low-Income Economy	1998-2002	2008
Tajikistan	Europe and Central Asia	Low-Income Economy	1999-2003	2007-2009
Ukraine	Europe and Central Asia	Lower-Middle Income Economy	1999-2002	2008
Armenia	Europe and Central Asia	Lower-Middle Income Economy	1999-2001	2008
Georgia	Europe and Central Asia	Lower-Middle Income Economy	2000	2008
Moldova	Europe and Central Asia	Lower-Middle Income Economy	1999-2001	2008
Egypt	Middle East and North Africa	Lower-Middle Income Economy	2000	2008

Belarus	Europe and Central Asia	Upper Middle Income Economy	2000	2008
Albania	Europe and Central Asia	Upper Middle Income Economy	1997-2002	2008
Turkey	Europe and Central Asia	Upper Middle Income Economy	1994-2002	2008
Romania	Europe and Central Asia	Upper Middle Income Economy	2000	2008
Macedonia, The Former Yugoslav Republic Of	Europe and Central Asia	Upper Middle Income Economy	2000	2008
Kazakhstan	Europe and Central Asia	Upper Middle Income Economy	1996-2001	2008
Azerbaijan	Europe and Central Asia	Upper Middle Income Economy	1995-2001	2008
Jordan	Middle East and North Africa	Upper Middle Income Economy	1997-2003	2008
Tunisia	Middle East and North Africa	Upper Middle Income Economy	2000	2005-2010
Croatia	Europe and Central Asia	High Income Economy	2000	2008
Poland	Europe and Central Asia	High Income Economy	2000	2008
Latvia	Europe and Central Asia	High Income Economy	1998-2003	2008
Slovakia	Europe and Central Asia	High Income Economy	1996-2004	2008
Lithuania	Europe and Central Asia	High Income Economy	2000	2008
Russian Federation	Europe and Central Asia	High Income Economy	1999-2001	2008

## Appendix 8: Assumptions

In this appendix, an overview of all assumptions will be provided for the statistical analyses in chapter 6.

### *Variable type*

All dependent and independent variables are measured at interval level. The only exception is the regional variable, which is used as a dummy and therefore poses no problems to this assumption. The variability of all values has been ensured through including a wide range of countries from different regions in the sample. Some variables providing ratio's (headcount ratio, poverty gap and Gini) are however somewhat constrained. As visible in table x on page x, the lowest and highest scores substantially deviate from respectively 0 and 1. This however corresponds with reality (where for instance no perfect inequality and thus, no Gini of 1 exists) and therefore poses no problems to the external validity of the findings of all models.

### *No perfect multicollinearity*

It has been tested if any predictor variables correlate too highly by checking if 'all VIF values [are] well below 10 and all tolerance statistics [are] well above .2' (Field, 2009, p. 242). Additionally, the average VIF has been calculated. Furthermore the collinearity diagnostics have been investigated while 'looking for large variance proportions on the same small eigenvalues' (Field, 2009, p. 242). The results are summarized in the following table.

Table: Assumption of no perfect multicollinearity

<b>Model</b>	Tolerance statistics above .2	VIF well below 10	Average VIF	Variance proportions distributed across different dimensions/eigenvalues
<b>1</b>	✓	✓	1.07	✓
<b>2</b>	✓	✓	1.07 → ✓	✓
<b>3a</b>	✓	✓	1.13 → ✓	✓
<b>3b</b>	✓	✓	1.66 → ✓	✓
<b>4a</b>	✓	✓	1.13 → ✓	✓
<b>4b</b>	✓	✓	1.71 → ✓	✓
<b>5a</b>	✓	✓	1.04 → ✓	✓
<b>5b</b>	✗*	✗*	5.29 → ✗*	✗*
<b>6a</b>	✓	✓	1.07 → ✓	✓
<b>6b</b>	✗*	✗*	8.14 → ✗*	✗*
<b>7a</b>	✓	✓	1.07 → ✓	✓
<b>7b</b>	✗*	✗*	8.09 → ✗*	✗*
<b>8a</b>	✓	✓	1.07 → ✓	✓
<b>8b</b>	✗*	✗*	8.14 → ✗*	✗*

\* For all of these cases, the China and India dummy and the interaction of this dummy with GDP growth violate the assumption of no multicollinearity. However, since these variables are expected to correlate strongly based on the interview results, this poses no threat to the reliability of the findings.

### *Independence*

All values of the outcome variable are independent, since they all come from a separate entity as provided by the World Bank Database used.

### *Non-zero variance*

All predictors are characterized by some level of variation. The variability of all values has been ensured through only including cases with a wide variety of characteristics such as income group and region, as has been illustrated in appendix 7, p. 64. ; therefore, this assumption is met for all tests.

### *Linearity, homoscedasticity, normally distributed errors and independent errors*

The assumptions of homoscedascity and linearity have been checked by plotting the standardized residuals against the standardized predicted values for each of the models. Following Field (2009, p. 229), this also provides information on the assumption of random errors. This assumption of normally distributed errors has been checked by plotting histograms and P-P plots for each model as well.

Table: Assumptions of linearity, homoscedasticity, normally distributed errors and independent errors

<b>Model</b>	Linearity	Homoscedasticity	Normally distributed errors	Independent errors (Durbin-Watson)
<b>Beta HC 1,25d</b>	✓	✓	✓	2.47 → ✓
<b>Beta HC 2,50d</b>	✓	✗	✓	2.04 → ✓
<b>Beta PG 1,25d</b>	✓	✓	✓	2.58 → ✓
<b>Beta PG 2,50d</b>	✓	✓	✓	1.91 → ✓
<b>1</b>	✓	✓	✓	1.79 → ✓
<b>2</b>	✓	✓	✓	1.57 → ✓
<b>3ab</b>	✓	✓	✓	✓*
<b>4ab</b>	✓	✓	✓	✓*
<b>5ab</b>	✗	✗	✓	1.48 → ✓
<b>6ab</b>	✗	✗	✓	1.51 → ✓
<b>7ab</b>	✓	✓	✓	1.55 → ✓
<b>8ab</b>	✓	✓	✓	1.84 → ✓

\* For models 3ab and 4ab, the Durbin Watson statistic could not be calculated since cases are weighted; however, the independence of errors in models 1 and 2 confirm that errors are uncorrelated for the same variables

For model 5 and 6, the generalizability of the findings is limited since the assumptions of linearity and homoscedasticity have not been met. Furthermore the assumption of homoscedasticity has been checked for the beta-regressions based on the ‘eyeballing’ of the scatterplot (Olders, 2014, personal

communication), leading to the reflexive interpretation of the beta-regression based on the headcount ratio of 2,50 dollar a day.

*Predictors are uncorrelated with external variables*

All variables of which the relevance has been confirmed by either the theoretical framework or the semi-structured interviews have been included in the regression models. Therefore not only development assistance and the change in inequality – that are relevant to the research questions – have been included, but also GDP growth was added to the model. Although development is related to many things, no correlations that can harm the reliability of these findings are expected.