

**Report of the Third External Review  
of the Bonn  
Center for Development Research  
(ZEF)  
2010 – 2016**

**July 2017**

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**Federal Republic of Germany**

July 6, 2017

Dear Professor van Ginkel,

On behalf of the Panel, I am pleased to submit to you, as per the Terms-of-Reference given to us, the Report of the Third External Review of the Center for Development Research (ZEF); the review involved both programme and management dimensions of the Center.

The Panel members with whom I worked on this review (Professors Rashila Ramli, and Samuel Jutzi) brought extraordinary skills and commitment to the task; we made every effort to analyse ZEF's entire programme and management in depth so as to offer a conscientious and even-handed assessment of the Institute and make constructive suggestions and recommendations.

The Panel is convinced that ZEF, now in the 20<sup>th</sup> year since the beginning of its operations in 1997, has established itself as a vanguard institute in its three core tasks, i.e. international development research, and related higher education and policy advice. The Center's Management and Staff and its International Advisory Board deserve much applause for this achievement.

We are further convinced that the Institute continues to be worthy of strong donor support. Although we point out certain areas of concern, we want to make it clear that we believe ZEF has the potential to make a very significant contribution to the ongoing dynamic paradigm shifts in international development and process governance. This contribution will be advanced greatly if Management, University, and Board sharpen the Center's profile and strengthen its core human and financial resource base to carry the Institute forward in strong partnership with related institutions.

We have pointed out first, in our report, the status of the Center as per the materials provided to us by Management and as recollected in our visits to the Center. In the main Chapter, we provide our assessment of the Center with respect to its conceptual and strategic outlook; to relevance, quality and impact of its research; to its action and performance in higher education; to its performance in knowledge transfer, policy advice and public profile; and to its organisation, management and finance. In this Chapter, we submit four suggestions and nine recommendations.

We gratefully acknowledge the assistance given to us by ZEF Management and staff, and by yourself, as International Advisory Board chair, in the review process. The documentation presented to the Panel was comprehensive, and staff and students were generous with their time and open in offering their views and responding to our questions. The Panel is grateful for their help that made it possible for us to complete a complex task on schedule.

We are also very grateful to the Rector and Pro-Rector of the Bonn University and a range of University Faculty members for their valuable advice; similarly, representatives of institutional partners and investors in Bonn and Berlin provided crucial input to the assessment process. We also highly appreciate the in-depth and detailed response of ZEF's PhD Alumni, Senior Fellows and institutional collaborators to online surveys carried out by the Panel to gauge relevant issues among those important ZEF stakeholders.

We also want to acknowledge the background support of Dr. Nathalie Scholl, external process assistant, to the review.

I speak for all members of the Panel in thanking you for giving us, through the Rector of Bonn University and ZEF Management, the opportunity to participate in such an absorbing and important assignment.

Yours sincerely,

A handwritten signature in blue ink that reads "Eva Terberger". The signature is written in a cursive style with a prominent flourish at the end of the name.

Prof. Dr. Eva Terberger  
Team Leader, ZEF Review Panel



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# Summary of Results

## Third External Review of ZEF

This report conveys the results of the third external review of the Bonn Center for Development Research (ZEF); the report was prepared (April - July 2017) by a three-member Panel (Professors Eva Terberger [chair], Rashila Ramli, Samuel Jutzi) based on comprehensive information provided by ZEF Management, on face-to-face interactions with ZEF Management, staff and students, Bonn University executives, ZEF stakeholder representatives, and on feedback provided by ZEF PhD Alumni, Senior Fellows and Collaborators to online surveys carried out by the Panel.

ZEF was founded in 1995 as a Bonn University Institute with a three-dimensional mandate (international development research, related higher education and policy advice). ZEF initiated operations in 1997, and is therefore in its 20<sup>th</sup> year of actual existence. On the average, every seven years ZEF Board and Management initiate an independent, external review with the objective of generating advice for guidance and adjustment of the Centre's strategy and course of action.

This report is presented in two distinct parts: first, the Panel submits a "Status and Progress Report" taking stock of ZEF's delivery in the review period 2010 to 2016 (the second ZEF review was done in 2010). This part of the report was prepared on the basis of the voluminous material provided to the Panel by ZEF Management, and of ZEF's website; this text was submitted for fact-checking to ZEF Management. Second, the Panel submits its assessment of the core elements of ZEF's concepts, institutional set-up, outputs and impacts, operations and financial basis, thereby incorporating the outcome of the interaction with ZEF's Management, Board chair, staff, students and institutional stakeholders and investors; the results of online surveys among ZEF's Alumni, Senior Fellows, and collaborators informed this assessment as well.

The assessment dwelt in detail on the five core issues addressed in the review, and resulted in the submission of four suggestions and nine recommendations for consideration by ZEF's International Advisory Board, ZEF Management, and the Rectorate of Bonn University (which issued the review contract). This assessment is briefly summarized below, and respective suggestions and recommendations are listed.

### 1. ZEF's Mission, Strategy and Priorities

The Panel starts from the assumption that ZEF continues to have the ambition of performing as a vanguard institute delivering on international development research, related higher education and policy advice, at least nationally, if not beyond. It is therefore somewhat astonished at the fact that ZEF has made rather limited investments to have this ambition reflected in its conceptual and strategic statements. The Panel noted that this implies the risk of the Centre not receiving the deserved attention by the relevant audience: as reported under the following Sections, ZEF's delivery in its research, higher education and policy advice is at quality standards which would well justify prominent attention to ZEF's conceptual and normative role in the on-going dynamic international development paradigm shifts. To counter the impression that ZEF is driven by opportunity rather than by strategic choice, the following recommendations and suggestion are submitted:

**Recommendation 1:** ZEF is advised to prepare a strategy, which is commensurate with its agreed ambitious mandate in full recognition of the paradigm shifts in the on-going *Global Transformation* discourse, and of ZEF's expected role in guiding such shifts.

**Recommendation 2:** The Review Panel advises that key criteria are identified at the corporate ZEF level which should guide the forging of partnerships and institutional associations in advancing development research, higher education, and policy advice in the context of the "*2030 Agenda for Sustainable Development*".

**Suggestion 1:** ZEF is invited to consider the definition of vision and mission statements for communicating its strategic message; similarly, ZEF is invited to consider the definition of conceptual statements (*policies/rules of engagement*), e.g. on priority setting; *ex-ante* and *ex-post* impact assessment; capacity building; publications - including intellectual property rights (IP), for underpinning its strategic action.

## 2. Relevance, Quality and Impact of ZEF's Research

ZEF presents its research delivery under the heading of six so-called "core research areas". The Panel considers that this presentational framework is of somewhat limited value for strategic programme alignment and priority setting as it allows accommodation of basically any array of contents related to development. In addition, as noted in the detailed analysis of selected high-profile projects, the inter-disciplinary nature of research, stipulated by ZEF's institutional set-up (three supposedly disciplinarily synergistic departments), could be more systematically canvassed, thus the following recommendation:

**Recommendation 3:** ZEF is advised to develop a corporate instrument that allows improved coordination of project acquisition and interdisciplinary cooperation between ZEF Departments, and contributes to the alignment of project selection to ZEF's key strategic goals.

On the other hand, the Panel considers relevance, quality and also impact of ZEF's research, not only as assessed by conventional citation records of work published in refereed journals in the review period as good; the decision to partially transition to open-source publication, in particular of contents related to development policy, and where download statistics are quite impressive, is commendable.

## 3. BIGS-DR (Bonn International Graduate School – Development Research) and Other Higher Education Projects/Training Activities

The Panel notes that BIGS-DR has established itself as a successful ZEF flagship operation with substantial impact at various levels as, *inter-alia*, confirmed by the Panel's online surveys among ZEF Alumni and Senior Fellows. The Panel notes the on-going discussions on the establishment of a Masters Course on International Development at the Bonn University with the objective of providing better prepared candidates for the PhD programme. ZEF has, in the review period, initiated a number of projects for the establishment of graduate schools in Africa and Latin America which are, in principle, supported by the Panel as valuable contributions to the generation of more decentralized higher education in the context of the on-going global transformation process; provisos ought to be considered particularly with respect to the sustainability of such initiatives as reflected in the suggestions and recommendations of this Section:

**Suggestion 2:** The Review Panel supports the intended establishment of a Master Programme Development Studies at Bonn University, but suggests that ZEF does not assume operational responsibility for this programme.

**Recommendation 4:** The Review Panel advises that ZEF's directorate develops a system of incentives to sustainably extend the BIGS-DR supervisory network beyond Bonn University, preferably not only covering national but also foreign universities.

**Recommendation 5:** In order to leverage synergies, prevent uncoordinated competition for scarce (supervisory) resources and strengthen BIGS-DR's role as ZEF's flagship programme, the Review Panel recommends that ZEF prepares a Centre-wide policy covering purpose, content and related selective criteria for ZEF's involvement in graduate school initiatives in developing and emerging countries.

**Suggestion 3:** Given the successful establishment of graduate schools in the WASCAL context and given the regional West Africa-wide formal agreement (at government levels) on this higher education programme, the Review Panel suggests that ZEF undertakes steps for building on this achievement and to give thoughts to a "Europe – West Africa development research and higher education alliance", involving, on the European side, *e.g.* the *European Association of Development Research and Training Institutes* (EADI) with its secretariat located also in Bonn (<https://www.eadi.org/>).

#### 4. Knowledge Transfer, Policy Advice, and Public Awareness

The Panel is highly impressed by the array of prominent contributions (in addition to the strong publications records and higher education impact) to knowledge transfer and policy advice: these are seminal contributions to and participation in key conferences, membership in panels, boards, councils, steering committees, and round-tables, high rankings in international science and technology think-tanks listing, awards etc. This performance is prominently recognized as reflected in the Panel's interaction with stakeholders. The Panel, however, voices the concern that such performance largely centres around the head of ZEFb who will retire shortly; succession planning and academic leave policy for Department heads require attention for more balanced and sustainable delivery on this score; the Panel submits the following recommendation:

**Recommendation 6:** When specifying the profiles for ZEF director successions the records of candidates in the response to comprehensive demands of inter- and transdisciplinary research, and of generating and communicating policy advice require highest attention.

The Panel's analysis of ZEF's website as the Centre's "window to the public" showed a number of rather serious shortcomings; noting the general resource constraints of the Centre, the following suggestion is submitted:

**Suggestion 4:** ZEF is encouraged to revise its "public relation" priorities in order to diversify its public profile and align it to the Centre's ambitious and broad mandate in development research and related policy advice. The Review Panel suggests that priority is given to preparing and maintaining an attractive and up-to-date website of the Centre before attention is given to social media profiles.

#### 5. Organisation, Management and Finance

The Panel considers ZEF's leadership and management set-up as suboptimal for the successful positioning and profiling of ZEF as per the original intentions and as per the current mandate of the Centre: as long as the leadership and management set-up of ZEF is viewed as having to serve essentially the mere addition of three basically independent professorships, critical issues for the profiling and strengthening of the Centre as per its strategic mandate cannot be addressed with sufficient vigour

and support. The Panel also considers that ZEF has grown very considerably in size and that its fundamental challenges need more professionalism and central coordination in leadership and management.

While the Panel is highly impressed by the very successful acquisition of third-party project funding throughout the review period (double the level during the previous review period), it is seriously concerned by the drastic (relative) decline of core resources available to the Centre, a decline which is a threat to the Centre's operation and sustainability. The following recommendations are submitted:

**Recommendation 7:** The Review Panel strongly recommends raising ZEF's core funding considerably and exploring all alternatives to do so (Federal Government, State of NRW, Federal Ministries, University of Bonn, e.g. via larger ZEF overhead shares of third-party funds, and joint ZEF / Faculty (junior) professorships, etc.).

**Recommendation 8:** ZEF and the Rectorate of Bonn University are encouraged to explore alternative models that would allow to move to a more centralised and professional management (including management of projects and project personnel).

**Recommendation 9:** The Review Panel advises that ZEF and the Rectorate of Bonn University undertake the search process for the two director successions in parallel and sufficiently early to allow smooth hand-over without extended periods of vacancies. The equality of the three director positions (W3) should be restored and they should be equally equipped with permanent scientific staff positions.

# Chapter I Status and Progress 2010 – 2016: Taking Stock of ZEF’s Delivery in the Review Period

## 1 Institutional Status, Governance and Management Structure

The *Center for Development Research (ZEF)* is an academic institute within the *Rheinische Friedrich-Wilhelms University of Bonn*, dedicated to research, teaching and policy advice on international development. Established in 1995 and operational since 1997, ZEF was the result of German reunification, and thus of the fall of the Berlin wall: the city of Bonn, hitherto the country’s capital, was compensated lavishly for the loss of this function to Berlin; ZEF was one of the beneficiary recipients and received substantial kick-off resources to become a high-profile, standard-setting institution for international development research, associated higher education, and related policy advice. ZEF was expected not only to link up in this task with related institutions across and beyond the German Federal Republic, but to also interact collaboratively with the growing array of UN and other relevant organizations and offices headquartered in Bonn. After the kick-off phase, ZEF was generally expected to have established itself such that it could successfully acquire third-party project funding and for institutional core funding to be made available by Bonn University through the budget of the state of North-Rhine Westphalia and the German Federal Government.

To oversee and help guide ZEF’s development into an international centre of excellence, ZEF was provided, in 1999, with a governance instrument, the International Advisory Board (IAB), originally termed “International Programme Commission”. Building on the strength of its members’ professional competence and reputation, the IAB is to advise and support the Centre in its strategic and conceptual direction and to monitor its activities. Members of the IAB represent the University of Bonn, German state and federal ministries, private companies, and the international development science and Non-Governmental Organisation (NGO) community; the three ZEF Directors *are non-voting* IAB members. Periodic independent external reviews of the Centre in all its aspects are mandated by IAB and contracted by the Rector of Bonn University; the report presented here relates to the third external ZEF review covering the period 2010 to 2016; it is presented - through ZEF Management - to IAB for consideration in its September 2017 meeting.

As an academic institute, and in line with its insertion in the University of Bonn, ZEF is managed along the established institutional university procedures; this relates to both ZEF’s resource (human and physical) and to its Programme management. ZEF’s original endowment involved three professorships at equal level (W3) to cater for the agreed core research areas *Political and Cultural Change (ZEFa)*, *Economic and Technical Change (ZEFb)*, and *Ecology and Natural Resource Management (ZEFc)*. In contrast to normal W3-positions, the three ZEF professorships have no regular teaching obligations (research-only positions), but were supposed to fulfil teaching functions in ZEF’s doctoral programme.<sup>1</sup> The three professorships are linked to the Director’s position of the respective departments. All of them are represented in ZEF’s Directorate. The ZEF Executive Directorship responsibility, however, is designed to rotate regularly among the three Department Directors. It is noted that the ZEF Directorate has been extended recently by the inclusion of the vice-rector of UNU (United Nations University), and of the director of BICC (Bonn International Centre for Conversion); in addition, the newly appointed Bonn Agriculture Faculty Member Jan Börner (W3) is associated with ZEF, and is also co-opted into the ZEF Directorate.

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<sup>1</sup> Since 2016, when ZEF’s doctoral programme was integrated into the framework of the Bonn International Graduate School (BIGS) these lectures have become officially credited.

## 2 Strategy

The strategic guidance for the development of ZEF is reported in the following documents:

(1) the *1995 foundation document ("Senate's Concept")* identifying the thematic structure of the Centre [*Political and Cultural Change (ZEFa), Economic and Technical Change (ZEFb), and Ecology and Natural Resource Management (ZEFc)*] - this institutional and thematic structure continues to be valid to-date;

(2) *Strategy for the Future of ZEF [2001 - 2011]*; the document identifies primarily the areas of priority attention in disciplinary (departmental) research, and points at four cross-cutting themes (theories of development and change; poverty and equity; governability and governance; natural resource scarcity);

(3) *Strategy for the Future of ZEF – The Next Decade [2007 – 2017]*; this document spans the key opportunities and challenges of the three resource dimensions addressed by ZEF (political and cultural resources; economic resources; ecological resources) to identify five cross-cutting themes for concerted inter- and transdisciplinary action for supporting the achievement of the *Millennium Development Goals* [land use and degradation; water management; biodiversity and its conservation; sustainable energy; health – in this last aspect, an apparent need for the acquisition of necessary capabilities is identified]; disciplinary research in support of such cross-cutting integration for impact generation is also identified – to be performed by the three ZEF Departments. The document also outlines the further development of the *Bonn International Graduate School for Development Research (BIGS-DR)* as well as the path to the strengthening of ZEF's policy advice function;

(4) *ZEF Strategy 2015 – 2020*; this document provides a brief update / modification of ZEF's core research thrusts thereby building on, but also expanding substantially the five previously termed cross-cutting themes into six core research areas [land, water, food and energy; health, nutrition, ecosystems; governance, conflicts and natural resources; mobility, migration and urbanization; markets and public services; innovation, knowledge and science policy]. It is suggested in this strategy document, though not discussed, that this modification of the research paradigm is reflecting the "United Nations post-2015" agenda (*2030 Agenda for Sustainable Development*). No mention of the *Bonn International Graduate School for Development Research (BIGS-DR)* is made in this document, which may imply that the provisions made in the 2007 – 2017 strategy document continue to apply to ZEF's engagement in higher education on international development.

Noteworthy is the remark on ZEF's priorities as recorded in the minutes of the 2016 ZEF Advisory Board meeting "*The Board Chair concluded that ZEF is a research institute that puts its second focus on teaching, and also delivers a service to society*" (Draft minutes of the Board meeting 2016, p.3, pages not numbered).

The *Progress Report for the External ZEF Evaluation 2017* with respect to the research programme follows the format given in document (4) *ZEF Strategy 2015 – 2020*.

## 3 Organisation: ZEF a, b, c and Administration (Organigramme, Staff)

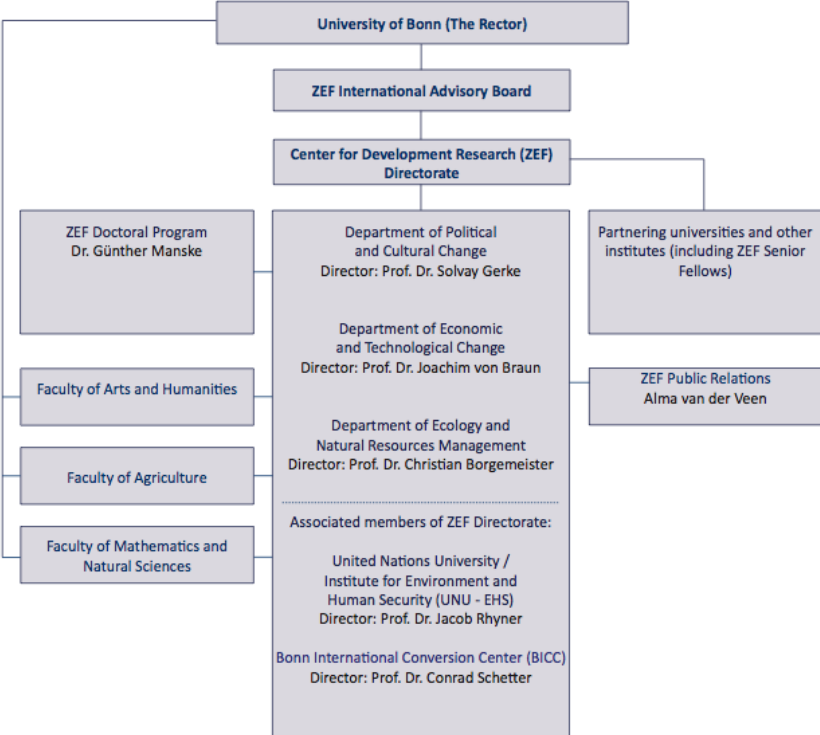
ZEF was launched in 1995 with the endowment of three professorships to cater for the agreed core research areas *Political and Cultural Change (ZEFa), Economic and Technical Change (ZEFb), and Ecology and Natural Resource Management (ZEFc)*. This structure continues to be the one of ZEF as an academic institute of Bonn University; the three professors (Department Directors) are members of the Faculty of Arts and Agriculture respectively (s. ZEF Organigramme below). The *Bonn International Graduate School for Development Research (BIGS-DR)* is operated within ZEF under the responsibility of the ZEF Directorate, and ZEF is governed by the International Advisory Board (IAB) with the Rector of the University as a permanent member.

At the time of the review period (reference date 31.12.2016) ZEF’s staff establishment according to salary class (civil service pay scale) is reported as follows: (1) scientific staff positions: permanent – 8.5; temporary – 58.25; (2) non-scientific staff positions: permanent – 4.5; temporary – 0.75; (3) Research and student assistants: 29. Of these positions (excluding research and student assistants), 15.4 are entrusted with non-scientific tasks (72% female, 28% male, 9 full time, 11 part time positions), while the remaining staff members actually work in research and teaching. Among these exclusively scientific staff members, the share of females is 52% (49% of full time equivalents - FTE). Scientific staff members (mostly PhD-level) reported are allocated as follows: 15 (13.5 FTE) in ZEFa, 22 (18.15 FTE) in ZEFb, and 27 (23.2 FTE) in ZEFc; one of these staff members is shared by ZEFb and ZEFc.<sup>2</sup> BIGS-DR and research project administration is assumed to be supported at least partially by central University services (not shown in documentation available to the Panel).

64 members of scientific staff are reported to have left ZEF during the review period, the vast majority moved to comparable or superior academic positions; six of these staff members were appointed as professors at other national or international universities.

Department leadership at the time of the review is as follows: ZEFa – Prof. Dr. Solvay Gerke (on leave (W2)); interim Director: Prof. Dr. Eva Youkhana ; ZEFb: Prof. Dr. Joachim von Braun (W3); and ZEFc: Prof. Dr. Christian Borgemeister (W3). The Academic Coordinator of BIGS-DR is Dr. Günther Manske.

**Figure I.1: ZEF Organigramme**



Source: ZEF’s webpage, <https://www.zef.de/fileadmin/webfiles/downloads/zef-organigram.pdf>

**4 Research Areas and Research Programmes/Projects**

The *ZEF Strategy 2015 – 2020* assembles six core research areas (previously termed cross-cutting or ZEF themes) in suggested alignment with the *UN 2030 Agenda for Sustainable Development*. The

<sup>2</sup> Minor differences between staff members reported and staff endowment reported are most likely caused by fluctuations.

core research areas are to “ensure the thematic integration of ZEF’s science program and shape the Center’s Research and Development objectives which focus on global change, poverty reduction, justice, maintaining diversity, and risk management, emphasizing gender issues, where appropriate”(ZEF Progress Report, p. 1) . Core research areas are intended to be platforms where relevant academic disciplines available at ZEF and in partner institutions are combined in integrated interdisciplinary research frameworks and where transdisciplinary alliances are expected to bridge gaps between science, politics and practice for enabling required impacts of ZEF’s development research.

The *ZEF Progress Report for the External ZEF Evaluation 2017* made available to the Panel is very briefly summarized below by core research area. An assessment is provided in Chapter II.

#### (1) Core Research Area Land, Water, Food and Energy

The array of relevant research priorities in this area is very large and may include, among other issues, land use, irrigation systems, crop improvement and management, agricultural production systems and climate change, soil quality, post-harvest losses, value chains, ecosystem services management, input allocation and management, regulatory systems pre- and post-harvest, etc.

ZEF’s respective priority choice is given by the headings of the main research projects:

- WASCAL (West African Service Centre on Climate Change and Adapted Land Use): lead Department ZEFc (duration: 2010-2017; 35.47m € [pre- and main phase]; 2.10m € [consolidation phase]; 0.63m € coordination phase); donor: BMBF). Very large regional research, capacity building and related infrastructural and institution-building related programme based on advanced intra-regional government agreements; main phase concluded - follow-up arrangements and potential ZEF involvement in follow-up under review.
- WISDOM (Water-related Information System for the Sustainable Development of the Mekong Delta): lead Department ZEFa (duration: WISDOM I 2007-2010, 0,65m €; WISDOM II 2010-2013; 0.75m €; donors: BMBF/GoVietnam). Concluded social-science based project.
- ELD (Economics of Land Degradation); lead Department ZEFb (duration: 2013-2016; 1.2m €; donor: BMZ). Concluded global study with broad international participation and prominent output and wide recognition.
- Water-Energy-Food Nexus – Global, basin, and local case studies of resource use efficiency under growing natural resource scarcity (Ethiopia, Sudan, and Egypt): lead Department ZEFb; (duration: 2015-2017; 0.38m €; donor: IFPRI /GIZ-BEAF [BMZ]). Regional project with prominent outputs in policy and modelling approaches.
- Economic and ecological restructuring of land and water use in the region Khorezm (Uzbekistan III): lead Department ZEFc; (duration: 2007-2011; ca. 4.98m €; donors: BMBF (ca. 90%) / NRW, Bonn University, Bosch Foundation). Sizeable concluded project with (sub)national focus.

#### (2) Core Research Area Health, Nutrition and Ecosystems

Focus is on human and ecosystem health as broadly suggested by the “One Health” approach mainstreamed globally across human, animal and ecology resilience and health science.

ZEF’s respective priority choice is given by the headings of the main research projects:

- Foodsecure (Exploring the future of global food and nutrition security): lead Department ZEFb; (duration: 2012-2017; 1.21m €; donor: EC [FP7]). Multi-partner initiative, with ZEF leading work on price volatility and agricultural innovation impacts and drivers.
- AG-WATSAN Nexus: Guiding pro-poor investments in the nexus among domestic water quality and quantity, sanitation and hygiene and agriculture from bottom-up: lead Department: ZEFb; (duration: 2012-2015; 0.80m €; donor: BMGF). Concluded inter-disciplinary project in Ethiopia, Ghana, India and Bangladesh on linkages between nutrition, health, and environment.
- Urban Health in Asia. Linkages between water institutions and human health; risk assessment strategies (India; Uzbekistan). *Re* India: Water resources institutions and human



health–contested institutional terrain of water- and vector-borne diseases in Ahmedabad City: lead Department ZEFa; (duration: 2011-2014; 0.16m €; donor: DFG). *Re Uzbekistan: Healthcap - Health Research Capacity and Water-Related Diseases: Improving Risk Assessment Strategies for Public Health Care*: lead Department ZEFa; (duration: 2014-2016 – extended to 2017; 0.44m €; donor: Volkswagen Stiftung).

### (3) Core Research Area Governance, Conflicts and Natural Resources

Decision making and governance on and of public goods is the focus in situations of inappropriate governance structures and where inequality compounds such decision making.

ZEF's respective priority choice is given by the headings of the main research projects:

- Shaping environmental policies for sustainable forest bio-economies: lead Department ZEFb; (duration: 2012-2017; 0.98m €; donor: Robert Bosch Foundation). Design and test of environmental policy instruments for managing trade-offs between commercial/industrial and ecosystem service supply of tropical forests.
- STRIVE (Sustainable Trade and InnoVation transfer in the bio-Economy: from national strategies to global sustainable development goals: lead Department ZEFb; (duration: 2016-2021; 2.97m €; donor: BMBF). Combining economics, political science, and environmental geography to design sustainable bio-economy policies and investments (for informing regulatory frameworks).
- BiomassWeb - Improving food security in Africa through increased system productivity of biomass value webs: lead Department ZEFc; (duration: 2013-2018; 3.97m €; BMBF). Addressing the four dimensions of food security (availability, access, utilization, stability) – focus on foresight opportunities.

### (4) Core Research Area Mobility, Migration and Urbanization

Focus on drivers and dynamics of migration in its relevant dimensions (geographic, social, economic, cognitive).

ZEF's respective priority choice is given by the heading of the main research project:

- Crossroads Asia – a conceptual contribution to Area Studies: lead Department ZEFa; duration: 2011-2017; 2.16m €; donor: BMBF). Application of novel sociology approaches on migration, mobility, conflict, and development.

### (5) Core Research Area Markets and Public Services

Focus is on inclusive developmental roles of markets, and the constraints on the access by the poor (rural and urban) to public services.

ZEF's respective priority choice is given by the headings of the main research projects:

- Volatility in commodity markets, trade policy and the poor (Volatility I): lead Department ZEFb; (duration: 2011-2014, 1.68m €; donors: BMZ, Bayer, Union Investment).
- Analysis and implementation of measures to reduce price volatility in national and international markets for improved food security in developing countries (Volatility II): lead Department ZEFb; (duration 2015-2017; 1.50m €; donor: BMZ).
- Marginality – Addressing the Nexus of Poverty, Exclusion and Ecology (MARGIP): lead Department ZEFb; (duration: 2010-2012; 0.33m €; donor: Bill and Melinda Gates Foundation (BMGF)).
- *Ex-ante* technology assessment and farm household segmentation for inclusive poverty reduction and sustainable productivity growth in agriculture (TIGA): lead Department ZEFb; (duration: 2011-2015; 1.05m \$; donor: BMGF).

### (6) Core Research Area Innovation, Knowledge and Science Policy

Focus on development of broad-based, bottom-up innovation cultures in conjunction with science systems.

ZEF's respective priority choice is given by the heading of the main research project:

- PARI (Programme of Accompanying Research for Agricultural Innovation): lead Department ZEFb; (duration: 2015-2019; 10.64m €; donor: BMZ). Multi-country project on the generation of scientific advice for food and nutrition initiatives (e.g. "One World, No Hunger" in Africa).

**Table I.1: Overview of ZEF's third-party funded project funds by Core Research Area\***

ZEF core research area	Project funds (million €)
Land, water, food and energy	46.16
Health, nutrition and ecosystems	2.61
Governance, conflicts and natural resources	7.92
Mobility, migration and urbanization	2.16
Markets and public services	4.56
Innovation, knowledge and science policy	10.64
<b>Sum</b>	<b>74.05</b>

\*exclusively projects covered in ZEF Progress Report

**Source:** Own calculations, figures according to revised<sup>3</sup> table of most relevant projects

All financial volumes above are reported according to the figures supplied in the revised table on characteristics of most relevant projects that was supplied to the Review Panel on special request<sup>4</sup>. In general, projects are spearheaded by one ZEF department, but in selected projects, e.g. WASCAL and BiomassWeb, both lead by ZEFc, other departments contributed considerably.

There is one research project listed in the table on characteristics of most relevant projects that is not listed in the *ZEF Progress Report for the External ZEF Evaluation 2017*: Integriertes Wasserressourcenmanagement in der Projektregion "Mittlerer Olifants" Südafrika (Phasen I, II): lead Department ZEFb; (duration: 2006-2010 (I) & 2012-2016 (II)); 1.00m €; donor: BMBF). An additional ca. 20 third-party funded projects – neither mentioned in the Progress Report nor in the table on most relevant projects – are listed in the table "Third-party funded projects" (exact number of projects depends on whether single phases are counted separately). Most of these projects are only small (< 0.2m €) or medium (< 0.5m €) in volume, but two exceed 1m € (Global Water Systems Project, GWSP III and IV: lead department ZEFc; duration: 2009-2015; 1.82m €; donor: BMBF; One Health und Urban Transformation: lead department ZEFc; duration: 2016-2020; 2.60m €, donor: MIWF NRW).

The following table is based on the figures supplied in the table on "Third-party funded projects". Beside all research projects the figures include funds that were supplied for the establishment of graduate schools, primarily abroad (funds of that type at lead department ZEFa ca. 4.6m €; lead department ZEFb ca. 0.7m €; ZEFc ca. 1.8m € plus WASCAL Graduate Schools).

<sup>3</sup> The revised table that was supplied after ZEF's fact-checking of this status report eliminated discrepancies between single projects' volumes in the table 'most relevant projects' and the table 'third-party funded projects'.

<sup>4</sup> Volumes supplied in USD were transferred to EUR according to the figures given in the table of third-funded projects.

**Table I.2: Overview of ZEF's third-party funded project funds by Department**

Department	Third-party funded projects (approved between 2005 and 2016)			
	Total funds approved		Funds of all projects ending after 31.12.2016	
	(Euro)	share of total funds approved (%)	(Euro)	share of total funds approved (%)
ZEFa	9,925,451.15	10.5	3,549,823.55	10.3
ZEFb	27,042,023.61	28.6	19,291,265.15	56.0
ZEFc	57,471,072.95	60.9	11,619,343.69	33.7
Sum	94,438,546.71	100.0	34,460,432.29	100.0

**Source:** Own calculations based on ZEF table 'third-party funded projects'.

## 5 PhD programme(s)

(1) BIGS-DR (Bonn International Graduate School - Development Research)

In its 2012 jubilee publication *"Paths of change – 25 Years of Development-Related Postgraduate Courses"* the German Academic Exchange Service (DAAD) lists ZEF's doctoral programme as the 36<sup>th</sup> development-related postgraduate course founded in Germany since 1987 and the first one dedicated to development co-operation. DAAD's 2016/17 programme of development related courses covers 38 courses in English and 6 courses in German language, of which only two are categorised under the rubric development co-operation. Beside ZEF's PhD programme this is the Master programme in Development Management at the Ruhr University Bochum (English language) founded in 2000 and since 2002 offering the possibility of a joint degree with the University of the Western Cape (UWC) in Cape Town, South Africa. In 2007 a PhD programme in development studies was established in Bochum that offers the possibility of a joint degree with the International Institute of Social Studies (ISS) of the Erasmus University Rotterdam, Netherlands.

Accordingly, *"ZEF's doctoral programme was the first of its kind in Germany and unique in its interdisciplinary set-up, internationality (students from >80 countries), and size (around 130 participants at any time). In 2016, the ZEF doctoral studies programme was integrated in the Bonn International Graduate Schools (BIGS), a network of doctoral programmes at the Bonn University.*

*BIGS-DR (Development Research) deals with political, cultural, economic, technical and ecological aspects of sustainable development. It is open to young scientists from across the world with an outstanding Master's or equivalent degree who wish to obtain a doctoral degree in social and political science, economics, agriculture, forestry or natural sciences. The students, termed junior researchers at ZEF, obtain at graduation a doctoral degree, granted by university faculties affiliated with ZEF.*

*An interdisciplinary approach is used at BIGS-DR, based on approaches from natural sciences, economics, and social sciences. The practical portion of the doctorate (i.e. the research for the dissertation) is preceded by an intensive 6-months course at ZEF" (Progress Report, p. 36). Junior researchers are first exposed to interdisciplinarity during a 3-months course programme; this course is followed by 3 months of disciplinary courses, which focus on the work in the three ZEF departments where the junior researchers receive expert knowledge and skills required for their subsequent field research. The entire doctoral programme is conducted in English.*

*"Approximately 50% of the BIGS-DR lectures are covered by ZEF researchers. Between 2010 and 2016, 74 external researchers also presented lectures in the doctoral studies courses. Each year, roughly 800 teaching hours are offered in the form of courses, seminars and workshops." (ZEF Progress Report, p. 36).*

Between 2010 and 2016, the ZEF doctoral programme/BIGS-DR is reported to have involved 316 participants, 146 of which have completed their dissertation and 15 left the program without graduating; 129 junior researchers were in the programme at end 2016. According to the Progress Report, *“116 junior researchers have had a primary supervisor co-opted from the Faculty of Agriculture, 5 from the Department of Mathematics, and 53 from the Philosophical Faculty, all at the Bonn University. 55 junior researchers have had or still have a primary supervisor from German universities other than the Bonn University, of which 29 have already graduated. In addition, 7 junior researchers were supported and have graduated or will graduate from non-German universities”* (ZEF Progress Report, p. 37). According to the background material on BIGS-DR supplied to the Review Panel the figures are as follows: 174 have or had a first supervisor at ZEF (116 ZEF Agricultural Faculty, 5 ZEF Math. & Nat. Science Faculty, 53 ZEF Phil. Faculty), another 55 have or had a first supervisor at Bonn university, another 29 have or had a first supervisor at another German university, another 7 have or had a first supervisor at a non-German university.

The goal of BIGS-DR is to graduate within approximately three years, combined with thesis publication in scientific journals. The average time it takes to graduate from BIGS-DR is reported to be 3.5 years; 85% of the participants complete the doctorate within four years. So far, 40% of ZEF's graduates were women (all figures quoted from ZEF Progress Report).

*“As of end of 2016, 59% of graduates from the BIGS-DR from developing countries have returned to their countries of origin, and 3% of the graduates are working in another developing country. An increasing number of graduates from developing countries work as scientists in international organizations such as the CGIAR centres. 12% of international graduates find long-term positions in an OECD country; 9% embark on a post-doctoral career, often at ZEF.*

*BIGS-DR participants from OECD countries (mostly German junior researchers) have usually found jobs in various science fields, national or international governmental or non-governmental organizations, or in German ministries. 58% are employed in Germany or other OECD countries, most within the development sector. 12% work in German ministries or subsidiary groups, and 16% in international organizations.”* (ZEF Progress Report, p. 37).

Average annual direct external funding (DAAD) for BIGS-DR amounts to 109,821 € (2012-2016). Another 0.71m € (minimum) to 0.87m € (maximum) is provided every year for scholarships (indirect support by DAAD and other donors). Adding other direct funding for scholarships (core funds and third-party funds), the total for scholarships amounts to an annual average of 1.3m € (2012-2016) (Figures provided in Background material).

## (2) Others

Higher education activities partially associated with ZEF and BIGS-DR are noted:

- The Right Livelihood College (RLC), Campus Bonn, Global Secretariat: lead Department: ZEFa; (duration Global RLC Secretariat: 2015 - mid 2017; 0.14m €; donor: Robert Bosch; duration RLC Campus: 2014-2016; 0.29m €; RLC doctoral research: 0.29m €). RLC is a global education and research initiative of universities in eight countries worldwide and the Swedish Right Livelihood Award (RLA) Foundation. The RLC Campus Bonn was established in 2011 at ZEF, and in 2014 RLC's Global Secretariat also moved to ZEF.
- WASCAL Doctoral and MSc Programmes. ZEF was implementing the first phase of the BMBF-funded WASCAL project by, among others (core research programme and competence centre), assisting in the establishment of climate change-related graduate schools in anglo- and franco-phone West Africa (10 countries; six doctoral graduate schools, four masters graduate schools). Lead department ZEFc (duration: 2010-2017; amount for graduate schools not provided; total WASCAL funds via ZEF 35.5m € [pre- and main phase]; 2.1m € [consolidation phase]; 0.6m € coordination phase]; donor: BMBF).

- ZEF – Tokyo University (International Programme in Agricultural Development Studies [IPADS]) cooperation on exchange of staff and students as well as on joint research and lectures.
- Ghanaian – German Graduate School (GGCDS): lead department ZEFa; (duration: 2008-2018; 3.25m €; donor DAAD). Collaboration *inter alia* in the WASCAL context.
- Cuban-German School for International Development Studies (CG-SIDS): lead department ZEFa; (duration: 2016-2020; 1.95m € according to project table (according to table on third-party funding with cut-off date 31.12.2016 0.61m €); donor: DAAD).

## 6 Publications

ZEF's publications portfolio refers to journal articles, book chapters, books, discussion & working papers and dissertations (doctoral & habilitations). Table 3 and 4 provide the corresponding overall publications statistics for the review period 2010-2016 (source: ZEF background material).

**Table I.3: Number of ZEF publications (2010-2016) by departments**

Department	Peer-reviewed journal articles	Book articles	Books	Discussion & working papers	Dissertations & habilitations
ZEFa	133	149	31	63	47
ZEFb	196	82	14	140	51
ZEFc	339	86	7	20	48
<b>Total</b>	<b>668</b>	<b>317</b>	<b>52</b>	<b>223</b>	<b>146</b>
<b>Overall total</b>					<b>1406</b>

Source: ZEF background material, in the original another column "total" is supplied.

**Table I.4: Number of ZEF publications (2010-2016) by year**

Year	Peer-reviewed journal articles	Book articles	Books	Discussion & working papers	Dissertations & habilitations
2010	77	54	10	13	22
2011	69	40	9	34	26
2012	86	57	5	35	17
2013	97	55	12	34	16
2014	123	43	3	38	12
2015	116	36	8	32	30
2016	100	32	5	37	23
<b>Total</b>	<b>668</b>	<b>317</b>	<b>52</b>	<b>223</b>	<b>146</b>
<b>Overall total</b>					<b>1406</b>

Source: ZEF background material, in the original another column "total" is supplied.

Table I.5 shows the doctoral theses and book publications as related to the six core research areas of the ZEF programme.

**Table I.5: Doctoral theses by core research area in the review period (2010-2016)**

ZEF core research area	Doctoral theses	Books
Land, water, food and energy	55	7
Health, nutrition and ecosystems	14	4
Governance, conflicts and natural resources	34	14
Mobility, migration and urbanization	4	2
Markets and public services	24	4
Innovation, knowledge and science policy	16	9

Source: Own calculations based on ZEF Progress Report

At the request of the Review Panel, ZEF prepared an impact assessment of its peer-reviewed publications thereby using the *h-index* which is one of the most popular metrics to measure research quality/quantity/impact of a scientist or institution through citations of publications on this research. The results of this assessment are shown and commented on in Chapter II.

## 7 Policy Advice, Public Awareness and Knowledge Transfer, Institutional Profile

ZEF is, by its constitution, an academic institute dedicated to research and teaching but also to policy advice on international development. For policy advice to be recognized and accepted by the recipient of such advice, the credibility, independence, and subject and innovative authority of ZEF as advice provider is essential. This reputation is the result of reliable, high-quality professional delivery on the Centre's mandate and strategy – communication on this delivery in the entire relevant array (peer-reviewed papers; books; working papers; conferences and workshops; annual reports; public relations materials and news instruments, including an attractive website); all this is the basis on which an authoritative institutional profile is built. This profile is then the platform which conveys to leading ZEF scientists the authority to generate and provide policy advice.

The *Progress Report for the External ZEF Evaluation 2017* provided to the Panel lists a few examples of such concrete advisory function:

- active membership in reputable science academies such as the African Academy of Sciences and German Academies of Sciences,
- lead roles in councils of the Federal German Government, such as chair of the 'Bio-Economy Council' and High Tech Forum, and membership in lead teams of SDG councils (e.g. responsibility for the economic dimension in the development of the "Zukunftscharta", an initiative of the BMZ to explain the SDGs to the public and involve civil society into their achievement), Board for Programme Evaluation of the Alexander von Humboldt Foundation, Robert Bosch Foundation programme on natural resources and development research,
- board memberships in international organizations, such as the largest German NGO "Deutsche Welthungerhilfe", Global Alliance for Improved Nutrition (GAIN), Chinese Centre for Agricultural Policy at Chinese Academy of Science, the International Institute of Tropical Agriculture (IITA)
- editorial boards of journals, including SCIENCE Advances, economics; Food Security journal, etc. as well as professional academic associations in various fields.

Further evidence of international recognition is reported in that, in January 2016, for the fifth time in a row, ZEF was ranked among the top 5% of the best international think tanks according to the *University of Pennsylvania's (UP) ranking Think Tanks and Civil Societies Program of the International Relations Programme: ZEF currently ranks #3 among the Top Science and*

Technology Think Tanks, #22 in the Best University Affiliated Think Tanks, and #24 in the Top Energy and Resource Policy Think Tanks. UP's annual ranking considers over 6,826 think tanks in 182 countries, covering various fields, such as health, environment, security, and international relations. The ranking is based on data and information from more than 9,000 journalists, politicians, decision-makers from public and private foundations as well as international experts. Criteria are, among others, relevant research, publications, and programs in substantial research areas.

The conveyance (transfer) of knowledge generated in ZEF's programme occurs on a range of channels, one of them being the personal and institutional cooperation in the process of the large number of doctoral thesis, courses and experimental field projects. Some of the research results are summarised in the form of policy briefs that have become more frequent in recent years. Other channels are conferences, conference sessions and workshops that according to the list provided to the Review Panel on average amounted to more than 20 p.a. during the review period. Further, there is the ZEF website on which the Review Panel has undertaken a brief analysis reported in Chapter II. Some indication that ZEF is active in its engagement for building public awareness and knowledge transfer is given by the list of almost 60 further activities of senior staff provided to the Review Panel. Over 400 public lectures in the review period (list provided to the Review Panel) give additional proof of ZEF's contributions to public awareness. The series "ZEF news" (print-run: ca. 2000) is published twice a year in English targeting the wider public.

## 8 National and International Networks / Partnerships

Expert networks and institutional partnerships are essential in international research and development as vital opportunities for the use of synergies are available in collaborative approaches and as pathways for conveying outputs on to the outcome and impact tract rely on partnerships.

The Review Panel received a blank (without annotation) list with 189 names of "most relevant collaborating institutions 2010-2016" across the world.<sup>5</sup> It is assumed that many of these institutions have been involved in research project implementation and associated PhD thesis "field" work. Others may have been involved in conference, workshop, expert consultations, in student supervision and in co-authoring publications, etc.

The *Progress Report for the External ZEF Evaluation 2017* presented to the Review Panel stresses "transboundary" dimensions of ZEF's research programme, implying "down-stream" linkages with development oriented entities.

The Review Panel was provided with a list of 32 guest scientists who visited ZEF during the review period; 19 of these received a contract from ZEF that could extend up to three years, but usually contracts cover a few weeks or months.

## 9 Funding and Expenditures

### 9.1 Funding

The German Federal Ministry for Education and Research (BMBF) is by far the most important external financier, followed by the German Federal Ministry for Economic Cooperation and Development. However, ZEF acquired grants also from the prestigious German Research Foundation (DFG), the VW or Robert Bosch Foundation as well as internationally from the EU or the Bill and Melinda Gates

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<sup>5</sup> In response to the Panel's request for fact-checking this status report, ZEF provided a new list with 73 institutions. Unfortunately, this information was provided too late for being included in the assessment. It would have provided a suited basis for an online survey if the Review Panel had received it much earlier. Instead, the Review Panel conducted an online survey covering only those 11 collaborating partners that were suggested as valuable interview partners.

Foundation, even if these funds often are of much smaller volume than the funds from the German Federal Ministries. Continuously, direct and indirect support (the latter in the form of scholarships for BIGS-DR) is offered by the German Academic Exchange Service as well as by a diversity of national and international private and public sponsors.

External Funding in the review period is dominated by one single programme: WASCAL, financed by BMBF through DLR. According to the list of externally funded projects provided by ZEF WASCAL had a volume of over 35 Million EUR between 2012 and 02/2016, not including the WASCAL consolidation phase with a volume of over 2 Million EUR that started in spring 2016. Even if the budget tables provided by ZEF do not allow to follow up on the influence of every project on the annual budget, it can be concluded that mainly WASCAL was responsible for the steep rise of external funding in the review period.

**Table I.6: Budget – 2010-2016**

External Funds for ZEF (Third-Party Projects) in Euro							
2010-2015: Actual; 2016: Budgeted as of June 30, 2016							
	Actual						Budgeted
	2010	2011	2012	2013	2014	2015	2016
ZEFa	1.005.898	1.358.413	1.599.207	1.888.011	1.403.573	1.155.707	1.122.320
ZEFb	810.401	950.481	1.510.878	2.253.174	2.107.240	4.135.162	4.216.597
ZEFc	3.048.171	3.313.630	6.442.592	7.695.346	8.127.541	6.960.333	3.954.768
<b>Total External Funds</b>	<b>4.864.470</b>	<b>5.622.524</b>	<b>9.552.677</b>	<b>11.836.531</b>	<b>11.638.354</b>	<b>12.251.202</b>	<b>9.293.685</b>
<b>Core Funds (see details below)</b>	<b>1.649.406</b>	<b>1.787.293</b>	<b>1.711.044</b>	<b>1.590.744</b>	<b>2.140.823</b>	<b>2.159.628</b>	<b>2.025.206</b>
Indirect Support (Scholarships)	779.225	715.178	746.237	745.692	685.130	871.625	856.992
<b>Total (External/Core Funds &amp; Indirect Support)</b>	<b>7.293.101</b>	<b>8.124.995</b>	<b>12.009.958</b>	<b>14.172.967</b>	<b>14.464.307</b>	<b>15.282.455</b>	<b>12.175.883</b>
Share of External Funds in % of Total	66,7	69,2	79,5	83,5	80,5	80,2	76,3
Share of Core Funds in % of Total	22,6	22,0	14,2	11,2	14,8	14,1	16,6
Share of Indirect Support in % of Total	10,7	8,8	6,2	5,3	4,7	5,7	7,0
<b>Core Funds: University of Bonn / North-Rhine Westphalia Funds for ZEF in Euro</b>							
2010-2015: Actual; 2016: Budgeted as of June 30, 2016							
	Actual						Budgeted
	2010	2011	2012	2013	2014	2015	2016
Personnel Costs	1.277.587	1.200.583	1.174.346	1.162.845	1.437.117	1.436.514	1.436.514
Administrative Costs	336.225	365.445	316.787	283.530	283.530	283.530	283.530
University Bonus System incl. BMBF/DFG OH Shares	35.594	221.265	219.911	144.369	420.176	439.584	305.162
<b>Total Core Funds</b>	<b>1.649.406</b>	<b>1.787.293</b>	<b>1.711.044</b>	<b>1.590.744</b>	<b>2.140.823</b>	<b>2.159.628</b>	<b>2.025.206</b>

Source: ZEF background material

The downside of the ZEF's exceptional success in acquiring third party funding: Core funding nowhere-nearly kept up with the rise in overall budget volume (this circumstance is further analysed and commented on in Chapter II).

## 9.2 Expenditures

Beside the information provided by the subdivision of core funds the Review Panel did not receive any information on the structure of expenditures. This was explained by ZEF's finance department by the fact that administration is implemented along the practices and procedure of Bonn University implying that each third-party funded project is administered separately. Therefore, aggregate figures on expenditure categories including third-party funding are not available (personnel costs, administration, investments, maintenance, travel costs, IT licences...). It can be assumed, however, that a large share of expenditures is related to research personnel costs, simply because it is highly unlikely, that a significant share of third-party funding was spent on durable assets, e.g. buildings, equipment etc. Third-party finance is usually provided for such investments to only a very limited extent.



WASCAL is likely to be an exception here because funds for investments in the Graduate Schools in West-Africa and the WASCAL headquarter in Accra, Ghana, were distributed via ZEF. Administrative costs associated with third-party funding are usually covered by a flat-rate percentage of their funding reserved for overheads (up to 20%). This money is transferred directly to the University of Bonn and only partially refunded to ZEF (see table II.6, BMBF/DFG overheads). The Review Panel was informed that the figures provided in the ZEF table on third-party funding include the overhead share. It is not known to the Panel whether this is also the case in table II.6 on the budget figures, but most likely it is not because it would imply some double counting (overhead shares as part of third-party funded budget and overhead refunded to ZEF by the administration of Bonn University).

## Chapter II Assessment and Recommendations

### 1 ZEF's Mission, Strategy and Priorities

#### 1.1 ZEF in the Context of the International Development Agenda

This initial Section is intended to place and assess ZEF in the global context of the paradigm shifts experienced by the international development agenda with respect to research and higher education; these shifts are highlighted in three distinct historical phases:

- (a) “*post-cold-war*” paradigm: ZEF, as a result of German Re-Unification and thus of the collapse of the Soviet Empire, when taking up its highly prominent programme in 1997, adopted largely the approaches to “*development assistance/cooperation*” designed and applied during the bipolar world view of the cold-war era: the “*rich and advanced North*” supporting the “*laggard or emerging South*”, with often only token attempts for providing “*level playing field conditions*”.
- (b) “*Millennium Development Goals (MDG)*” agenda: The MDGs addressed low and middle-income countries, and intended to “*reshape decision-making in developed and developing countries*”, still assuming a bipolar (N-S) world<sup>6</sup>. The dynamically accelerating globalization of economy, science and information in that period confirmed rather than questioned such approaches. The MDGs had a clear focus on improving a few specific dimensions of poverty, such as extreme income poverty, nutrition, education, health, gender equality and access to water and sanitation. ZEF’s Strategy Paper 2007-2015, relevant for the external review (no longer on the ZEF website) and the brief update of ZEF’s Strategy (2015-2020) only very marginally refer to the MDG agenda, but implicitly espouse this agenda when designing its approach to development<sup>7</sup>.
- (c) “*Sustainable Development Goals (SDG)*” agenda: In September 2015, the UN adopted a new global development framework, the “*2030 Agenda for Sustainable Development*”, which includes the Sustainable Development Goals (SDGs) – identifying 17 goals and 169 targets. There is an essential conceptual difference between the MDG and the SDG agendas: the SDGs are universal goals that aim at guiding national policies and international co-operation, and they are much more comprehensive in scope than the MDGs: they broaden the agenda by including economic issues (*i.e.* industrialisation, infrastructure, labour markets), environmental issues (climate change, protection of terrestrial ecosystems and the oceans), governance issues (justice for all, accountability and inclusive institutions) and systemic aspects of global co-operation. The brief update of ZEF’s Strategy (2015-2020) simply states that “*ZEF’s six core research areas take the emerging United Nations post-2015 agenda into account which is succeeding the 2000-2015 Millennium Development Goals*”. Other than that, there is no statement on how the *2030 Agenda for Sustainable Development* is viewed as impacting on ZEF’s Strategy and Programme.

Against this background and in recognition of global challenges – e.g. fragility of public order and violent conflicts, climate change and food insecurity, forced and voluntary migration – the generation of sound knowledge and the communication and implementation of corresponding strategies on how to foster sustainable development in global partnership has gained much relevance, nationally and internationally. ZEF with its activity portfolio of applied development research in combination with higher education of young academics primarily from developing countries in close cooperation with a multitude of national and international development institutions appears to be very well positioned to play a strategic role in this context.

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<sup>6</sup> [http://www.un.org/millenniumgoals/2015\\_MDG\\_Report/pdf/MDG%202015%20rev%20\(July%201\).pdf](http://www.un.org/millenniumgoals/2015_MDG_Report/pdf/MDG%202015%20rev%20(July%201).pdf)

<sup>7</sup> [https://www.zef.de/fileadmin/webfiles/downloads/News/News\\_4/Dev\\_concept\\_MK\\_HF\\_3.pdf](https://www.zef.de/fileadmin/webfiles/downloads/News/News_4/Dev_concept_MK_HF_3.pdf)

In contrast to ZEF's favourable strategic "starting position", though, the Review Panel notes that there is a surprising dearth of (documented) conceptual efforts by ZEF to incorporate the very significant shifts in global paradigms with respect to the core business of ZEF (development research, related higher education and policy advice). This is all the more surprising as individual members of ZEF were and are vigorously engaged in the public national and international debate on the SDGs and their implications for development policy. Such negligence in documented institutional reaction implies *inter alia* the risk of ZEF as an organisation being insufficiently fit for purpose (intellectual guidance of the development paradigm shift), and of thus being side-lined from the on-going vigorous debate on what is increasingly termed "Global Transformation" - even in the relevant German institutional context as reflected in the footnotes 3 & 4 below<sup>8,9</sup>. This is particularly regrettable because ZEF with its traditional focus on applied research at the micro level, its emphasis on inter- and trans-disciplinarity and its contacts and partnerships all over the world appears to be well placed to help shape the international development policy under the post-2015 agenda.

there is no institutional context in both footnotes...

## 1.2 ZEF's Mission, Strategy and Concepts in the Light of the International Agenda Shifts

Based on the above discussion of the rapid and significant global development paradigm shifts and ZEF's only superficial and cursory perception of these shifts, a brief analysis of the Centre's strategy documents (2007-2017 and update 2015-2020) is undertaken. This analysis also needs to refer to ZEF's vision and mission statements, which the Review Panel perceives as useful instruments for any research and *research for development* institution in guiding strategy design and communication. In addition, for an institutional strategy to be relevant for the Centre's mission and vision achievement, key policy statements are helpful to underpin effective and efficient strategy implementation, and to manage related risks.

The Panel notes that the ZEF Strategy texts (2007 – 2017 and 2015 – 2020) do not spell out explicit vision and mission statements for the Centre; the formula which is closest to a mission statement is under Section 2 of the 2007 – 2017 Strategy document (page 6) which defines the *goal* of ZEF's core research and doctoral programmes "to produce and disseminate sound development research that will help reduce poverty and enhance sustainable development; to improve development policy making and support collaborative research with scholars in developing nations; to use doctoral studies to build greater capacity for improved policy analysis and policy-making in developed and developing countries; and to disseminate its research results beyond the research community through policy dialogue and advice, workshops, seminars, and a variety of other strategies". The 2015 -2020 ZEF Strategy substituted this previous Strategy, and refrained from formulating any vision and mission statements altogether. The 2015 – 2020 Strategy paper did, in addition, exclude statements on ZEF's capacity building and policy advisory tasks, and focused exclusively on the grouping of broad research topics into six so-called "core research areas": 1. land, water, food and energy, 2. health, nutrition and ecosystems, 3. mobility, migration and urbanization, 4. governance, conflicts and natural resources, 5. innovation, knowledge and science policy, and 6. markets and public services. The strategy broadly places these research areas into the context of poverty, global change, risk, justice, development, but does not provide any rationale on choice or priority of these areas and their suggested constitutive topics. What the strategy document does provide is simply a kind of brief introduction or overview on each of the six core research areas, suggesting a broad range of potential research topics within each area. Overlaps between core research areas imply the absence of clear-cut boundaries between the six core research areas. All in all, rather than being a directive for selective action, ZEF's strategy appears to be more of an inclusive framework with sufficient flexibility and breadth to incorporate almost any research direction a ZEF member may want to choose.

The Panel considers this situation unsatisfactory for an institute, which by its design is to be the lighthouse of the country's academic development research, associated with higher education and

<sup>8</sup> [http://www.die-gdi.de/uploads/media/German\\_Development\\_Institute\\_Stamm\\_10.04.2017.pdf](http://www.die-gdi.de/uploads/media/German_Development_Institute_Stamm_10.04.2017.pdf);

<sup>9</sup> <http://www.higher-education-2030agenda.de/de/home.html>

policy advice, and expected to lead the related conceptual debate at least nationally, if not more broadly.

To be fair, a comparison with other leading institutes in development research and higher education reveals that a vision and mission underpinned by a strategy for guiding action is not uniformly regarded as necessary prerequisite for success: Rather similar to ZEF, Harvard University with its Center for International Development at the Kennedy School for Public Policy, ranked as no. 2 in the QS 2017 world ranking of development studies<sup>10</sup>, does not spell out a vision, is rather vague on its mission<sup>11</sup> and distinguishes five objectives for guiding „*primary activities and programs*“. Quite differently, the Institute of Development Studies (IDS) at the University of Sussex, ranked as no. 1 in development studies, puts high emphasis on a clear strategic profile: A vision and mission lead to three challenges that the institute aims to address: reduce inequalities, accelerate sustainability and build more inclusive and secure societies.<sup>12</sup> In its annual reports, these three areas also serve as the structure to account for the institute’s research accomplishments. Interestingly, the IDS reveals many similarities to ZEF: It is associated with a university, but does not receive any core funding. It is entirely dependent on grants, many of them being reserved for specific research projects; and DFID, the UK agency for development co-operation, is one of IDS’s most important sponsors. In between these two extremes of development studies at the University of Harvard and the University of Sussex, there is a wide range of strategic transparency – unfortunately the German examples covered all being more of the strategically opaque type.<sup>13</sup>

For a balanced assessment on what type of strategic approach might be appropriate for ZEF, stakeholder views collected by the Review Panel offer further indication: Independent of the respective reference group (sponsor, ministry, other private or public development institutions or actors), it was the almost unanimous opinion of the interview partners outside of ZEF that – despite all the regard and great respect for ZEF’s achievements – a lack of strategic clarity is one of ZEF’s major weaknesses. Without any specific question or hint of the Review Panel, interview partners expressed views like “I do not really know what ZEF stands for”, “it is not obvious what ZEF is aiming at” or “ZEF’s work could be more focussed, also in research”, “there does not seem to be an overall plan”, “there is little selectivity” or even “ZEF’s actions seem to be dominated by the need to acquire new grants”. Some single comments that came closest to voicing a strategic profile of ZEF associated it with “specialist for rural development” – a strategic position that ZEF would probably not claim as its preferred one (anymore). As if echoing these voices, a senior fellow in the online survey remarked in the final open text field for any other comments: “I would like to see on the ZEF webpage a clear mission statement and a set of goals and statements as guidelines for ZEF activities.”

In interesting contrast to the voices on strategic shortcomings were the opinions on ZEF’s strategic potentials: its ability to conduct high-quality applied research in the remotest corners of the world, its interdisciplinary profile in development research and higher education, even if it is not always fully utilised yet (see next subchapter), and pro-active interactions with development practitioners and politicians to overcome implementation challenges and contribute to societal change. Almost all interview partners saw the potential for a more prominent role of ZEF in the SDG context, not least due to its competitive advantages in transdisciplinary research. Several interview partners mentioned that they expect ZEF to take on a leading role in on-going initiatives aiming at the synergistic use of

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<sup>10</sup> <https://www.topuniversities.com/university-rankings/university-subject-rankings/2017/development-studies>

<sup>11</sup> “Our ongoing mission is to apply knowledge to and revolutionize the world of development practice.”

<https://www.hks.harvard.edu/centers/cid/about-cid>

<sup>12</sup> „Through our commitment to engaged excellence applied across the interlinked areas of research and knowledge, teaching and learning, and communications and impact, we will work locally and globally in mutual learning towards transformations that reduce inequalities, accelerate sustainability and build more inclusive and secure societies.“ <http://www.ids.ac.uk/about-us/our-vision-and-strategy>

<sup>13</sup> DIE or the Centre of development studies at Göttingen University do not seem to be guided by an explicit strategy. Notably, DAAD has developed a strategy along the lines of an impact chain often applied in development projects and well suited for monitoring and evaluation as late as 2016.

the rich variety and complementary profiles of institutions in the Bonn area mandated with development related tasks. Again, a senior fellow in his/her final remarks offers a kind of summary of these positive perceptions of future potentials: “ZEF's mission is more pressing than ever (see UN 2030 Agenda for Sustainable Development). I wish and hope for ZEF that it can overcome the instabilities experienced on its leadership level in the past years and rediscover its unique mandate and core strengths: interdisciplinary development research taking into account all dimensions of sustainability. The world, and the German research landscape, needs the type of research done at ZEF.”

### 1.3 Strategic Institutional Partnerships

ZEF's strategic partnerships with other national and international institutions engaged in development research, higher education and/or policy provide a suitable platform for forming a (research) nexus in support of the SDGs' achievement. Although ZEF with its immense wealth of international contacts seems well equipped to develop into a key node of such a nexus, the Review Panel observed a lack of strategic differentiation in the development of partnerships. In preparation of the evaluation, it received an un-annotated list of 189 names of ZEF's “most relevant collaborating institutions 2010-2016” - underpinning the very rich institutional experience on partnerships and collaboration available at ZEF. The Panel has no reason to question this wealth of experience; it would, however, have required classification of these institutional linkages with respect *e.g.* to nature (including legal), importance, and priority to gauge the significance of ZEF's partnership approach.

Obviously, an institute of ZEF's size cannot maintain as many as 189 contacts at the same intensity, all the more as many of them most likely trace back to individual scientist's research endeavours. In fact, the practical action of ZEF's researchers reveals intensive exchanges and tight links to a small number of institutions only. These partnerships do not appear to be formalised in institutional partnership agreements that go beyond co-operation in well-defined research projects with limited duration. Somehow this is underlined by the answers of the four only respondents to the Panel's online survey among eleven selected international collaborators that ZEF suggested for an interview. All of the respondents were associated to ZEFb, and the main common activity was an international conference in one case and the exchange of students in the other, while only one respondent reported intensive and continuous interaction in various fields. Notable exceptions with respect to intensity of interactions and formalisation are the recent appointments of the BICC Director and the UNU Vice-Rector as associated members of ZEF's directorate. As much as the Review Panel welcomes this move, it is also obvious that this type of formalisation is linked to individuals and has thus a natural limit in numbers. Therefore, formal strategic partnerships with institutions of similar mandate across Germany and Europe, and indeed globally, in much closer association than currently available in research, higher education and policy advice appear advisable and indeed necessary for expanding outreach and impact.

Of interest, in the “2030 Agenda for Sustainable Development”, is the question of agreements which provide conditions for “*level playing field*” collaboration; the Review Panel considers that ZEF has opportunities for championing such types of collaboration on “*equal footing*” based on its own track record (the ZEF – WASCAL interaction may be a case in point).

### 1.4 Conclusions, Suggestions and Recommendations on ZEF's Strategy

In the light of the collected evidence and its analysis, the Review Panel submits the following recommendations:

**Recommendation 1:** ZEF is advised to prepare a strategy, which is commensurate with its agreed ambitious mandate in full recognition of the paradigm shifts in the on-going *Global Transformation* discourse, and of ZEF's expected role in guiding such shifts.

The Review Panel is convinced that such a strategy would be essential for ZEF's future development because it would serve as an instrument for clearly communicating ZEF's profile and competitive strengths to potential partner institutes, to the development community as a whole and to the broad public; it would also offer guidance to ZEF's researchers internally and thereby help to bundle forces

behind a common aim, and it would provide a benchmark for monitoring progress and initiating strategic realignment if necessary and where appropriate.

To support ZEF in gaining a leading role within a (research) hub centred around new development strategies and policies in the SDG context it is further recommended:

**Recommendation 2:** The Review Panel advises that key criteria are identified at the corporate ZEF level which should guide the forging of partnerships and institutional associations in advancing development research, higher education, and policy advice in the context of the “2030 Agenda for Sustainable Development”.

In addition, it is suggested:

**Suggestion 1:** ZEF is invited to consider the definition of vision and mission statements for communicating its strategic message; similarly, ZEF is invited to consider the definition of conceptual statements (*policies/rules of engagement*), e.g. on priority setting; *ex-ante* and *ex-post* impact assessment; capacity building; publications - including intellectual property rights (IP), for underpinning its strategic action.

## 2 Relevance, Quality and Impact of ZEF’s Research

### 2.1 Strategy Implementation: Relevance and Selectivity of Core Research Areas

ZEF’s programmatic choices find an almost 1:1 reflection in its Core Research Areas and their respective projects. ZEF’s **Progress Report for the External ZEF Evaluation 2017 - ZEF’s research in the context of its research strategy** therefore follows the format of the 2015 - 2020 ZEF Strategy. Accordingly, a brief assessment of this report is a natural starting point for the evaluation of ZEF’s research achievements.

The Review Panel notes, in this context, that the ZEF website reports diverging Research Themes (*i.e. Science policy / Governance / Water resources / Land use and food security / Renewable energy / Environmental and climate change / Mobility and migration / Health and sanitation*) from the “core research areas” listed in the 2015 -2020 Strategy and in the *Progress Report* presented to the Panel (*i.e. Land, water, food and energy / Health, nutrition and ecosystems / Mobility, migration and urbanization / Governance, conflicts and natural resources / Markets and public services / Innovation, knowledge and science policy*); this is a circumstance which implies unexplained inconsistencies (e.g. “home” of ZEF’s climate change research agenda in the *Core Research Area* context), possible redundancies (see below), and might therefore lack clarity.

As shown in Table 1 (Chapter I), the Core Research Area *Land, water, food and energy* is, from the funding perspective, the most powerful area (61% of all resources, including the substantial WASCAL-related resources; for a more detailed assessment of WASCAL, the largest ever ZEF-operated project, see Annex IIIc); second is the Core Research Area *Innovation, knowledge and science policy* (15%), and third the Core Research Area *Governance, conflicts and natural resources* (11%) – with the other three areas left with between 6% and 3% of total funding.

The distinction between the six *Core Research Areas* is not entirely clear and thus subject to judgment calls depending on the importance given to various aspects of the projects in question [e.g. the ELD project on the *Economics of Land Degradation* (see a brief assessment in Annex IIIb), attributed to Core Research Area *Land, water, food and energy* might just as well figure under the Core Research Area *Governance, conflicts and natural resources*]. Similar uncertainties on attribution might arise between the Core Research Areas *Mobility, migration and urbanization* and the one on *Governance, conflicts and natural resources* (e.g. for the *Crossroads-Asia* project, see a brief assessment in Annex IIIa); similar considerations may be valid for the linkage between *Health, nutrition and ecosystems* and *Governance, conflicts and natural resources*, e.g. with respect to the attribution of the recently approved project on the strengthening of the West African Region in the context of the *Inter-*

*governmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)*. The Review Panel notes that research on climate change has no explicit home in the set of *Core Research Areas*, a circumstance which requires at least some explanation considering both the SDG agenda and ZEF's own respective track record (e.g. in the WASCAL research dimension). There is also an absence of a ZEF-internally agreed format for the presentation of the Departmental Work Programme delivery to the six Core Research Areas. Further, it is noted that quite a considerable number of projects of an individual financial volume above 0,1m € is not reflected in the Progress Report.

While the Review Panel recognises the relevance of ZEF's research topics in the past and actual development context and appreciates the attempt to thematically group the projects under so-called *Core Research Areas*, it considers the discriminating power of these areas not sufficient for assisting the identification of ZEF's thematic priorities. As implied in the analysis of ZEF's strategy above, strategic ambiguities are mirrored in a rather unselective choice of research areas and projects. This impression is reinforced by evidence collected during the evaluation mission. Besides some critical remarks of external stakeholders on insufficient selectivity, this was most notably the observation of ZEF's senior researchers' continuous outlook for new calls from donors that might somehow fit into ZEF's as well as their own competence profile. While such opportunistic approaches may be warranted in small institutes, they may not really be justified in well-established institutes like ZEF where more conceptual strength is expected. Further, it was remarked that only very few of ZEF's leading scientists have the authority, contacts and power of persuasion to shape the (research) agendas of potential donors and thereby indirectly "create" projects tailor-made for their own or ZEF's research profile. These findings inevitably reveal lack of clarity in ZEF's research profile, and nourish the impression of the Centre's research action to be driven by opportunity rather than by strategic direction and agreement.

Despite these strategic weaknesses, the Review Panel recognizes that ZEF's framework of core research areas is a useful presentational instrument, and – more importantly – it has been used to single out a few research domains, which are suggested to gain incremental attention in the future:

Core Research Area *Land, Water, Food and Energy*:

- Transformation of resource ownership systems and community owned resources – distributional effects and efficiency;
- Interlinkages among resource use and the sustainability and quality (rather than quantities) of resources;

Core Research Area *Health, Nutrition and Ecosystems*:

- Increasing craving for (animal) proteins;
- Health and nutrition in the context of rising urbanization;

Core Research Area *Governance, Conflicts and Natural Resources*:

- Reconciling development and ecosystem services, and related institutional and technological innovations;
- Tools for analysing complex systems, and applications to solutions of complex emergencies, fragile states etc.;

Core Research Area *Mobility, Migration and Urbanization*:

- Identity, ethnicity and race relationships in transformation;
- Research in the urban space, and urban – rural linkages, and modelling across scales;

Core Research Area *Markets and Public Services*:

- Labour market transformations under digitization and "industry 4.0", and job creation and/or job losses in developing countries (with a particular focus on youth and gender);
- Opportunities of big data for analyses of services and public and private investment;

Core Research Area *Innovation, Knowledge and Science Policy*:

- Demographic transitions, youth and aging – implications for social policies;
- Digitization of the society.

The Review Panel notes and supports ZEF's intention to thereby slightly shift attention more to urban areas, and consequently lower the focus on research in the rural space, taking note that the tradi-

tional categories of “rural” and “urban” may become less appropriate in the future, whereas broader concepts of spatial, regional, clustering, and development-corridor framing become more important.

The Review Panel also notes and supports that ZEF is intending to build up its capacities to apply and synthesize “big data” in various areas of research; in the survey among ZEF Alumni (122 respondents), 80% welcomed this initiative; in the survey among ZEF Senior Fellows (24 respondents), 95% expressed the same position. While ZEFb and ZEFc (Alumni) and ZEFb (Senior Fellows) were identified as champions of this initiative, there was staunch support for the application of “big data” facilities/capabilities across the ZEF Programme.

## 2.2 Quality of Research: Quantitative and Qualitative Evidence

### 2.2.1 Acquisition of Third-Party Funding

Even if it is input and not outcome or impact related, third-party funding is widely recognised as an important indicator for research achievements. Particularly a continuous success in the acquisition of third-party funding over time is indicative of the funded party’s high and lasting research reputation.

The Review Panel is highly impressed by the success of ZEF in its third-party project fund acquisition. While with 4.9m € in 2010 and 5.6m € in 2011 ZEF managed to retain the high level of external funding it had achieved towards the end of the last review period, external funding doubled on average to more than 10 Million € p.a. since 2012. Most funds were supplied by ministries, but some highly prestigious funders of research like DFG that usually supply much smaller grants than ministries are represented as well. Over the review period 2010-2016, success in fund acquisition is distributed unevenly across the Departments with almost 61% of the total of 94.5m € (attributable to Departments, 98.2m € in total) attributable to ZEFc, largely influenced by grants of more than 38m € for the WAS-CAL project, 28-29% attributable to ZEFb, and 10-11% attributable to ZEFa. Judging exclusively by the funds of projects ending after the review period, ZEFc and ZEFb switch positions, with ZEFb contributing 56% and ZEFc contributing almost 34% while the percentage attributable to ZEFa stays about the same (see table 2 in chapter I).

Considering that research grants in the social sciences are usually significantly lower on average than in the natural sciences, ZEFa’s success – even though falling behind the fund acquisition of ZEFb and ZEFc – is quite remarkable. When additionally considering that ZEFa for most of the review period suffered from severe discontinuity and absence of leadership, its achievements become even more impressive as fund acquisition almost entirely relied on the capabilities of the Department’s senior researchers. If there is anything to worry about in ZEFa’s fund acquisition it would be the outlook beyond 2016: There is an almost unilateral accentuation on graduate schools abroad. The last large project with a prominent research component was the recently completed highly successful project CrossRoads – Asia (see Annex IIIa).

The Panel recognizes that the broad thematic spectrum provided by the six *Core Research Areas* allowed ZEF’s senior scientists (not only in ZEFa) significant freedom of manoeuvre in responding to calls of donor agencies for the submission of project proposals. Likely, this is a key driver of the acquisition success. At the same time, the Review Panel is alarmed at the (relative) decline of core resource support to the Centre, which the Panel considers as a significant threat to the conceptual strength and sustainability of the Institute (see chapter II.9).

### 2.2.2 Impact Analysis of ZEF’s Publications in Refereed Journals

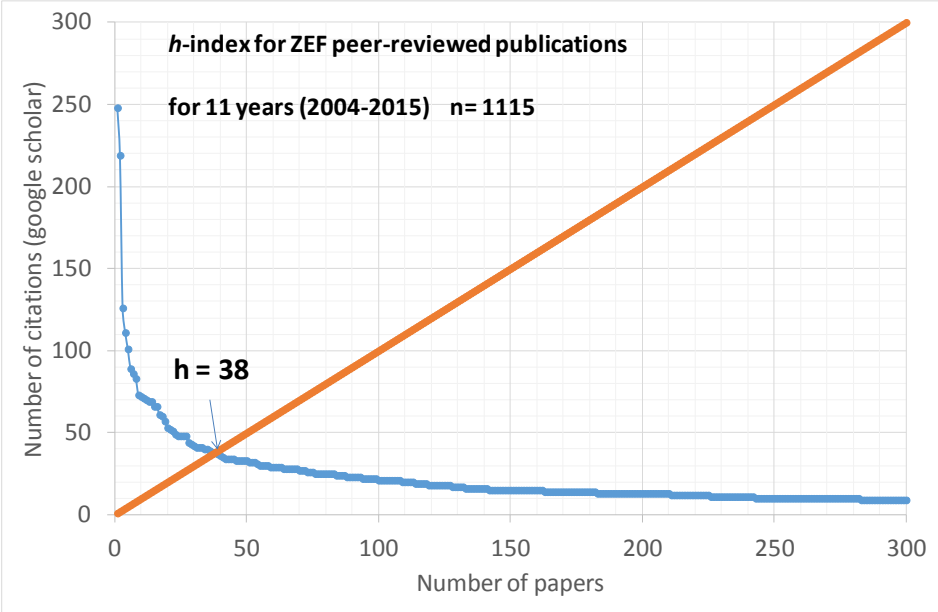
As indicated in Chapter II, ZEF has prepared, at the request of the Review Panel, an impact assessment of its peer-reviewed publications, thereby using the *h-index* which is one of the most popular metrics to measure research quality/quantity/impact of a scientist or institution through citations of publications on this research (Manske and Voit 2017: The Impact of ZEF Peer-Reviewed Publications). The Panel certainly recognizes the shortcomings and biases related to this (and other) impact metric(s), but considers the results of this analysis useful for its assessment of ZEF’s publications output insofar as it is placed in refereed journals; at the same time, such analysis is assumed to be useful for management purposes.



The figure below shows an *h-index* for the ZEF publications based on the citation counts in 2016 for the peer-reviewed publications (n=1141; sum of citations in 2016=9147) between 2004 and 2015 at ZEF, meaning that during that period, ZEF had at least 38 publications, which have been cited at least 38 times.

Given that the *h-index* is higher in a given year when publications of several years are considered, the *h-index* is 32 when based on the citation counts in 2016 for the peer-reviewed publications between 2010 and 2015 only (n=565).

**Figure II.1: *h-index* for ZEF peer-reviewed publications (2004-2015)**



**Source:** Manske and Voit 2017, p. 3

The interpretation of such analyses requires considerable care, particularly when comparing institutions - one of the reasons being that citation counts are discipline dependent (*e.g.* citation counts are much lower in humanities than in natural science, and institutions may have variable discipline mixes). Table 3 below shows the *h-index* of a range of universities, with the University of Bonn showing an *h-index* of 44.

**Table II.1: *h-index* (2005-2009) across various universities<sup>14</sup>**

	<i>h-index</i> (2005-2009)
University of Bonn	44
Harvard	72
University Oxford	54
Massachusetts Institute of Technology	57
University College London	50
Cornell University	52
TU München	46
Ludwig-Maximilians-Universität München	48

Source: Manske and Voit 2017, p. 4.

Of interest is also the analysis of ZEF's top publications:

- (1) Top publications (2004-2016) above ZEF's *h-index* (38) calculated by total number of citations to the end of 2016: 38  
 Distribution among Departments: ZEFa: 5; ZEFb: 14; ZEFc: 19;  
 Senior-authored by: Senior Researcher 22; Junior Researcher (doctoral student) 13; Senior Fellow 2; Alumnus 1.
- (2) Top 30 publications (2004-2016) based on average number of citations per year (Google Scholar):  
 Distribution among Departments: ZEFa: 3; ZEFb: 12; ZEFc: 15;  
 Senior-authored by: Senior Researcher 18; Junior Researcher (doctoral student) 8; Senior Fellow 2; Alumnus 2
- (3) Top 32 publications (2004-2016) based on journal impact factor:  
 Distribution among Departments: ZEFa: 2; ZEFb: 13; ZEFc: 17;  
 Senior-authored by: Senior Researcher 14; Junior Researcher (doctoral student) 16; Alumnus 2.

The Review Panel considers ZEF's publications, assessed as per the *h-index*, as good, particularly considering the discipline mix available in the Centre. Additionally, it needs to be considered that applied research on the micro level might have lower probabilities of being accepted by high ranking journals and being quoted by other authors.

Quote from OECD Issue Brief 2011: Research Organization Evaluation, p. 11  
 „Perverse incentives in Research Organisation Evaluation  
 Evaluation mechanisms can have unintended effects on academic researchers and the type of work they undertake. These include affecting the choice of publication practices to suit what is considered to be the best strategy for a good outcome. In evaluation systems which count publications there is evidence of spreading material across several papers to achieve an increased publication rate. A commonly raised concern is a move to journal publications in disciplines where other outlets (such as monographs) have traditionally been more important... Certain types of research are clearly disadvantaged in peer review referring to international excellence, including practice-related and applied research, and research not of international standing but of local or regional significance.<sup>14</sup> ...“

14. Butler, L. (2009), Impacts of Performance-Based Research Funding Systems: A Review of the Concerns and the Evidence. Presentation to OECD-Norway Workshop on Performance- Based Funding for Public Research in Tertiary Education Institutions Paris, 21 June 2010.

<sup>14</sup> Source: University Ranking by Academic Performance (URAP), Informatic Institute (modified); <http://www.urapcenter.org/2010/search.php>

The high proportion of lead publications senior-authored by ZEF's senior scientists is certainly an expected circumstance; however, it might be advisable to encourage and support junior scientists (doctoral students) to measure up with highest publications quality expectations.

It is noted that lately, in selected areas, *e.g.* in the project on the economics of land degradation, ZEF researchers follow a strategy of publishing open-source to make research results broadly accessible; in this context, download statistics gain relevance as indicators of impact – this appears to be particularly true for ZEF's policy advisory mandate.

### 2.2.3 Qualitative Assessment of ZEF Research – Selected Examples

There is an increasing amount of literature emphasising that for the evaluation of interdisciplinary and transdisciplinary research in particular traditional quantitative indicators are not sufficient. To quote just one example:

Quote from Belcher, B. M. et al (2016): Defining and assessing research quality in a transdisciplinary context. *Research Evaluation*, 25(1), 1-17, abstract and p.1.

“Research increasingly seeks both to generate knowledge and to contribute to real-world solutions, with strong emphasis on context and social engagement. As boundaries between disciplines are crossed, and as research engages more with stakeholders in complex systems, traditional academic definitions and criteria of research quality are no longer sufficient—there is a need for a parallel evolution of principles and criteria to define and evaluate research quality in a transdisciplinary research (TDR) context....

Current research evaluation approaches as applied to individual researchers, programs, and research units are still based primarily on measures of academic outputs (publications and the prestige of the publishing journal), citations, and peer assessment ... additional criteria are needed to address the innovative approaches and the diversity of actors, outputs, outcomes, and longterm social impacts of TDR. It can be difficult to find appropriate outlets for TDR publications simply because the research does not meet the expectations of traditional discipline-oriented journals. Moreover, a wider range of inputs and of outputs means that TDR may result in fewer academic outputs. This has negative implications for transdisciplinary researchers, whose performance appraisals and long-term career progression are largely ... governed by traditional publication and citation-based metrics of evaluation.”

Unfortunately, a widely agreed-upon evaluation system that spells out how to do justice to inter- and transdisciplinary research does not yet exist, but all efforts to design such a system appear to agree that the quality of interactions with research stakeholders, *e.g.* politicians, practitioners and end users, needs to be taken into account – an approach that at least to some extent finds its reflection in this evaluation (see the numerous stakeholder voices collected as well as the following sub-chapters on PhD programmes and knowledge transfer), even if it would go far beyond the scope of this review to follow this path for every single ZEF research project. However, to provide some insights into the inter- and transdisciplinary profiles of ZEF's research, three exemplary projects were chosen here for the illustration of ZEF's achievements: CrossRoads – Asia (ZEFa), Economics of Land and Soil Degradation – ELD (ZEFb) and WASCAL (ZEFc) (see corresponding Annex III).

While interdisciplinarity is an inherent feature of CrossRoads and WASCAL, the potential of interdisciplinary approaches does not appear fully exploited in ZEF's ELD project. This, although ELD shows particular strengths in transdisciplinarity, well documented in its open-source publishing strategy, having generated large amounts of downloads; in case studies being accompanied by policy briefs; and in its affiliation to the ELD Initiative. Transdisciplinary potentials are certainly available in CrossRoads and WASCAL as well, but their translation for political or end user action was limited – apparently due to weak links to national or international policy makers; similar shortcomings were probably also caused by privileging German research institutions in both projects.

The Review Panel notes that neither CrossRoads nor ELD shows any interdepartmental collaboration at ZEF, while in WASCAL such interaction appears largely limited to teaching and supervisory tasks in WASCAL Graduate Schools. These indications of unexploited interdisciplinary potential within ZEF are also perceived by the respondents to the senior fellow online survey: While 79% consider ZEF's interdisciplinarity, mirrored in its three Departments, well placed to fulfil its tasks, the actual interac-

tion in place among the Departments was rated rather low, with the interaction between ZEFb and ZEFc rated relatively higher than the other two linkages. Unexploited interdisciplinary potential was often mentioned as a ZEF shortcoming during interviews as well. Several external stakeholders pointed to a certain discrepancy between ZEF's great emphasis on interdisciplinarity in public and its predominantly disciplinary approach in actual research; one voice even noted a tension between the interdisciplinarity of ZEF's mission and its disciplinary organizational structure. This comment is corroborated by the statement of an alumnus in the online survey: "I am generally not in favour of departments within ZEF. They further division rather than inter-/transdisciplinarity."

Unfortunate long periods of Department directors' leave of absence (see Annex V) are likely causes of unexploited interdisciplinary potential. This finding is supported in interviews with ZEF's senior scientists: Instead of partnering up with colleagues from other Departments, focusing on the response to calls by single Departments or even single scientists seems to be the rule, even leading to the extreme case of two Departments handing in competing applications, with one of them being backed by a professor external to ZEF as the Department director was absent.

### 2.3 Conclusions, Suggestions and Recommendations on ZEF's Research

In general, the Review Panel is highly impressed by what has been achieved in ZEF's research.

However, it notes prominent shortcomings which somehow mirror the lack of strategic clarity referred to above: Coordination of research activities across ZEF seems to be largely absent; opportunity appears a major driver of project acquisition; targeted exploitation of ZEF's interdisciplinary set-up is largely missing. The Review Panel holds the firm view that working on these apparent weaknesses could decisively unleash ZEF's significant potential; this leads the Review Panel to recommend:

**Recommendation 3:** ZEF is advised to develop a corporate instrument that allows improved coordination of project acquisition and interdisciplinary cooperation between ZEF Departments, and contributes to the alignment of project selection to ZEF's key strategic goals.

## 3 BIGS-DR and Other Higher Education Projects/Training Activities

### 3.1 ZEF's Higher Education as an Asset for Research

Before commenting in more detail on ZEF's large portfolio of activities in post graduate education (predominantly PhD programmes) that was briefly summarised in chapter II, the Review Panel wishes to point out the broad consensus among all stakeholders within and outside ZEF that there are no obvious tensions or trade-offs between ZEF's engagement in higher education and ZEF's research ambitions. Quite on the contrary, ZEF's students/junior scientists from all over the world are perceived as a firm asset for conducting the type of research ZEF stands for: locally applied research with strong inter- and transdisciplinary components. In line with the call presented above for new criteria in evaluating this type of research, the Review Panel considers ZEF's achievements in higher education as a strong element for informing the evaluation of ZEF's accomplishments in research.

### 3.2 ZEF's PhD Programme – BIGS-DR

The most prominent ZEF higher education activity is catered for by BIGS-DR which is a largely self-contained operation within ZEF with very little operational inputs / commitments by the general Bonn University services. The Review Panel has received substantial information on this programme and has also benefited from valuable feedback by ZEF's doctoral programme Alumni and by ZEF's "Senior Fellows" in the online surveys carried out by the Panel.

It appears that BIGS-DR has established itself as a successful ZEF flagship operation with substantial impact at various levels. Some of such impact can be inferred from the feedback of the ZEF Alumni to the survey done by the Review Panel (122 respondents, 2/5 each ZEFb and ZEFc Alumni, 1/5 ZEFa Alumni): 90% of the respondents would join the programme again; 98% are currently employed; 61% are employed in their home country; 55% are active in research and research management; 81%

have published their research findings in refereed journals; and 84% consider their doctoral degree as having been decisive for getting their current professional position. Even if the respondents are likely to have a positive bias towards ZEF, these results are positive indeed. Two further details highlighting the strong bond between ZEF and its alumni: About 10% of respondents graduated more than 15 years ago, and 56% of respondents actively contacted ZEF after graduation.

Going more into detail, alumni (30% of the respondents female) also provided comments on the way they have experienced the course work, thesis preparation and implementation in the doctoral programme. Again, the feedback is largely on the positive side. On a rating scale between 1 (very good) and 4 (weak) only the support by the home institution (2.39), by the host institution during field work (2.11) and by the degree granting university (2.29) received an average score below 2, while almost all aspects related directly to ZEF were rated significantly better (all between 1.51 and 1.9, for details see Annex VI). Advice on choice of topic (1.54) and support by thesis supervisor/tutor during thesis implementation (1.53) received top average rankings. In view of the supervision load carried by ZEF alone, this is remarkable (75% had their thesis supervisors from ZEF, 12% from Bonn University Faculty members, with the remainder from other German Universities (one from a French University) which appears quite similar to the figures provided for BIGS in total). However, in the open comments some Alumni expressed their dissatisfaction with supervision. All in all, feedback from German/European alumni was slightly less positive than that of alumni from developing countries.

Still on the positive side, but on average more moderate was the feedback from the 24 “Senior Fellows” responding to the Review Panel’s online survey. The academic level of BIGS-DR students was rated as heterogeneous (on average rated 4.7 and 4.6 respectively for course work and thesis work - on a scale from 6 [best] to 1 [lowest]). In contrast to the top rating by alumni, supervision and tutoring by ZEF received a lower rating (4.3) from senior fellows. Two respondents took their time to explain their dissatisfaction, pointing out too many supervisions/tutoring responsibilities for single researchers at ZEF, too small a network of external supervisors and too late involvement of second supervisors who are expected to support the candidate within the graduating faculty.

To address the challenge of heterogeneity in students’ knowledge at entry, there are on-going discussions about the introduction of a Masters’ course on international development at Bonn University. Although this would provide an effective instrument for assisting in the provision of better prepared candidates for the doctoral study programme at BIGS-DR and 55% of the responding “Senior Fellows” support this idea in the survey, there were critical voices as well referring to several disciplinary master programmes at Bonn University and elsewhere in Germany that could provide a similar service. Additionally, there were worries about BIGS-DR becoming a kind of closed shop for Bonn masters and about an even higher burden for ZEF.

The Review Panel shares the concern on the supervision challenge identified by senior fellows. While there is some interaction of BIGS-DR with development-research-related higher study programmes in Germany (e.g. Bochum graduate school [economics-focused], Hohenheim, Gießen) which, besides the exchange of students and lecturers, involves sourcing of thesis supervisors, this cooperation is clearly underdeveloped. Only 14% of 265 BIGS-DR first supervisions in the review period were or are performed by non-Bonn universities, another 21% of students had or have a non-ZEF first supervisor at Bonn University while the remaining 75% remain officially with the three (and often only two) directors at ZEF. Even if this problem is cushioned by a functioning system of tutoring by ZEF senior scientists, the number of supervisees per ZEF supervisor is still very high. Quite obviously, a wide supervision network spanning Germany and beyond with ZEF in its centre – an idea vehemently put forward by one of the senior fellows - is currently a vision rather than a reality. Positively noted in this respect is the considerably improved relationship between ZEF and relevant faculties of Bonn University. Not only was BIGS-DR finally recognised in 2016 as one of the Bonn International Graduate Schools (BIGS), but also in 2016 a former ZEF junior professor was appointed as W3 professor at Bonn’s Agricultural Faculty with him also having been co-opted as member of the ZEF Directorate. There appears to be also improvement of the collaboration with Bonn’s Economic Faculty.

It cannot be ruled out that shortcomings in supervision are partly responsible for extended study periods or even drop-outs, as it was suggested by one senior fellow. The Review Panel assessed the drop-out figures of BIGS-DR students – for the student batches 2010-2013 the figure is 11.1% which is significantly higher than the figures given by ZEF, but which the Review Panel does not consider alarming (see Annex IV). Similarly, the average duration of the study projects has been reported somewhat too optimistically by ZEF (3.5 years), given that “net-time” is calculated, *i.e.* net of “no-study” times due to *e.g.* pregnancy and other reasons (while under normal circumstances graduate study duration is measured by the time between matriculation and date of thesis defence). As students’ grants are usually supplied for 3 years, this “overtime” could cause individual financial hardships nevertheless – the risk of financial insecurity in the final study period was explicitly mentioned to the Review Panel by junior scientists.

The long-time serving and effective Coordinator of BIGS-DR and his small team seem to be very active in finding solutions for such funding difficulties as well as for other problems. For example, BIGS-DR students do not appear to have access to a programme-internal formal conflict solution mechanism; therefore conflicts are dealt with informally, often with the Coordinator of the doctoral programme being the first point of contact, and with the ZEF Executive Director as ultimate mediator.

The above challenges faced by BIGS-DR should not blur the sight, however, for its remarkable achievements, reflected in the impact on its alumni all over the world, the high satisfaction of ZEF’s alumni and students, and the continuous support of donors, some of them referring to past evaluation results before the extension of their support. According to two senior fellows who are in a position to compare BIGS-DR to other development study programmes around the world ZEF’s BIGS-DR is one of the best programmes internationally on offer.

### 3.3 Graduate Schools in Developing Countries

ZEF is involved in the set-up and/or operation of an increasing array of higher education initiatives beyond BIGS-DR in various regions of Africa and Latin America (*e.g.* Ghanaian-German Centre for Development Studies and Health Research / Cuban German School / WASCAL Graduate Schools). Additionally, the Right Livelihood Campus (RLC) and this initiative’s secretariat are located at ZEF.

While it is not entirely clear to the Review Panel why – set-aside its prestigious value – ZEF sees added value in hosting RLC, ZEF’s engagement for graduate schools in developing countries appears an obvious extension of its activity portfolio in Germany. It can be regarded as a vehicle moving applied research even closer to the ground, fostering proximity and exchange with local communities, practitioners and politicians as the recipients and users of transdisciplinary research. ZEF’s competitive advantages when answering to donor calls of the graduate school type are confirmed by senior scientists. ZEF’s competence in this area is reflected in positive assessments of what has been achieved so far: GGCDs, one of the DAAD-funded Centres of African Excellence evaluated in 2012 was assessed as a very successful centre<sup>15</sup>; the WASCAL schools, reviewed in 2017, show impressive results for their “young age”, not least in respect to creating a formal West-African network (see Annex IIIc). These are convincing pieces of evidence backing the view that graduate schools in developing countries hold strategic potential for ZEF – all the more from the “level playing field” SDG perspective.

However, it cannot be ignored that – just like RLC, or even more so – graduate schools in partner countries draw on ZEF’s resources, which is only imperfectly compensated for by respective project funds. Delivering high quality tertiary education in countries that – compared to *e.g.* Germany – are still in the process of upgrading their national education systems needs considerable and long-term support in teaching and thesis supervision when aiming for sustainability. This cannot be provided sustainably and effectively by a limited number of individuals mostly financed by project funds. Similar to ZEF’s BIGS-DR, these programmes abroad are in need of an international network of qualified teachers and supervisors. In the case of WASCAL, incentives for German researchers to be part of

such a network were provided by a WASCAL-linked core research programme. How the motivation to stay engaged can be sustained after the research programme came to an end in 2016 is still an open question. To overcome the imminent support vacuum at least at its WASCAL partner school in Senegal, ZEFb recently established a system of mentoring by ZEF senior scientists for the third student batch at this school. In light of the pressing supervision situation in ZEF's own PhD programme, at best this can be a temporary solution.

### 3.4 Conclusions, Suggestions and Recommendations on Graduate Schools

The Review Panel concludes that in the review period BIGS-DR was successful in keeping up its good track record. In addition, the Review Panel considers that the engagement in support of graduate schools in developing countries holds strategic potential. Nevertheless, ZEF is encouraged to consider the following suggestions and recommendations to strengthen BIGS-DR's reputation and clarify the role of BIGS-DR in relation to partner graduate schools abroad.

**Suggestion 2:** The Review Panel supports the intended establishment of a Master Programme Development Studies at Bonn University, but suggests that ZEF does not assume operational responsibility for this programme.

**Recommendation 4:** The Review Panel advises that ZEF's directorate develops a system of incentives to sustainably extend the BIGS-DR supervisory network beyond Bonn University, preferably not only covering national but also foreign universities.

**Recommendation 5:** In order to leverage synergies, prevent uncoordinated competition for scarce (supervisory) resources and strengthen BIGS-DR's role as ZEF's flagship programme, the Review Panel recommends that ZEF prepares a Centre-wide policy covering purpose, content and related selective criteria for ZEF's involvement in graduate school initiatives in developing and emerging countries.

**Suggestion 3:** Given the successful establishment of graduate schools in the WASCAL context and given the regional West Africa-wide formal agreement (at government levels) on this higher education programme, the Review Panel suggests that ZEF undertakes steps for building on this achievement and to give thoughts to a "Europe – West Africa development research and higher education alliance", involving, on the European side, e.g. the *European Association of Development Research and Training Institutes* (EADI) with its secretariat located also in Bonn (<https://www.eadi.org/>).

## 4. Contributions to Knowledge Transfer, Policy Advice, and Public Awareness

### 4.1 ZEF's Reputation and its Effectiveness in Policy Advice

Similar to education, also knowledge transfer, policy advice and contributions to public awareness building have to be considered as components of successful transdisciplinary research that find no reflection in conventional bibliometric impact measures.

For policy advice to be recognized and accepted by the recipient of such advice, the credibility, independence, and subject and innovative authority of ZEF as advice provider is essential. This reputation is the result of reliable, high-quality professional delivery on the Centre's mandate and strategy: communication on this delivery in the entire relevant array (peer-reviewed papers; books; working papers; conferences and workshops; annual reports; public relations materials and news instruments, including an attractive website) is the basis on which an authoritative institutional profile is built. This profile is then the platform which conveys to the institution ZEF and its leading scientists the authority to generate and provide high quality policy advice and play a prominent role in knowledge transfer and awareness building targeting a broader public.

In the vast material provided by ZEF and summarized in Chapter II, the Review Panel recognizes a range of important elements of such an authoritative profile. Complementing the impressive publication and education impact that was topic of previous sub-chapters ZEF's accomplishments, and which

are relevant here include seminal contributions to and participation in key conferences, membership in panels, boards, councils, steering committees, and round-tables, high rankings in international science and technology think-tanks listing, awards etc.

During its site visit and other interactions with stakeholders the Review Panel was able to collect additional first hand evidence: First, one panel member visited the high-ranking European Development Conference 2016 on “Migration and Development” co-organized by the European Development Network and ZEF. The topic was of outstanding political relevance, the selection of speakers and discussants offered a fruitful mix of renowned scientists and development practitioners; and the panel member could observe how ZEFa and ZEFb were jointly engaged, and the director of ZEFb taking the role of the Conference face to the public. Second, interviews with those federal ministries that are ZEF’s largest funders revealed high appreciation for ZEF’s policy advice. One representative was particularly enthusiastic praising the responsiveness of ZEF even on short notice, and ZEF’s high-quality and at the same time practically relevant contributions to shaping and implementing topical political initiatives. In short, the verdict was “*extremely successful and extremely satisfactory*”. Also other external stakeholders underlined ZEF’s rather outstanding position in the provision of policy advice. One interview partner para-phrased it: “ZEF is in the privileged position of providing advice that is listened to.”

The Review Panel notes, with some concern, that such high-profile ZEF policy advice is currently related to just one name: Joachim von Braun [the Panel noted that – in the first half of the review period, but centred on West Africa - the name of Paul Vlek was perceived at a comparable level]. One interview partner even explained that in his/her perception Joachim von Braun stands for himself and his reputation is not automatically associated with ZEF by all audiences. This circumstance implies the risk that ZEF will lose its political face when Joachim von Braun retires in two years. Obviously, the heavy reliance on one person is also, at least partially, linked to the discontinuity in ZEF directorships. ZEFa’s director has been on leave of absence for many years; due to their excellent qualification many interim directors left for more stable and often higher level positions. ZEFc’s director, recruited for his excellent track record in science and as Director-General of an international research institute, has been in office for three years only – a time span that is considered short for building the kind of personal trust that is essential for high level policy advisory tasks. Against this background, it appears of utmost importance that ZEF invests into “new faces” for gaining additional political profile and visibility in the near future.

#### 4.2 ZEF’s Media Policy

The institutional website traditionally has a very important role as “ZEF’s public window” with close to 140,000 hits by 72,000 users in the month of April 2017. The Review Panel undertook an assessment of ZEF’s website and considers it not fully fit for purpose – the website is graphically unattractive and outdated (e.g. structure of and report on research programme conflicts with the current strategy; the same is true for the media centre guide), inconsistencies and redundancies are available e.g. in the media centre’s flashes (e.g. new ZEF annual report hinted at in three of the six research themes, not in others). The Review Panel recognizes the achievements on the presentation of ZEF in the publication *ZEF News* and the social media (Facebook, Twitter, Youtube); it notes, however, that currently the reach of these instruments is far lower than the one of the website.

#### 4.3 Conclusions, Suggestions and Recommendations Regarding Policy Advice and Related Activities

In recognition of ZEF’s remarkable achievements and the need for ensuring the reliable and effective transfer of knowledge generated to policy making processes and the public at large, the Review Panel submits the following recommendation and suggestion:

**Recommendation 6:** When specifying the profiles for ZEF director successions the records of candidates in the response to comprehensive demands of inter- and transdisciplinary research, and of generating and communicating policy advice require highest attention.



**Suggestion 4:** ZEF is encouraged to revise its “public relation” priorities in order to diversify its public profile and align it to the Centre’s ambitious and broad mandate in development research and related policy advice. The Review Panel suggests that priority is given to preparing and maintaining an attractive and up-to-date website of the Centre before attention is given to social media profiles.

## 5 Organisation, Management and Finance

### 5.1 Organisational Set-Up and Personnel Resources

For an institution of ZEF’s size, an organigramme like the one quoted in chapter II (even if that version is more up-to-date than the one provided to the review panel in the background material) does not seem adequate – particularly because it does not provide any overview of the internal Departmental set-up (topics, contact persons, internal responsibilities). One reason why providing such an organisational chart and keeping it up-to-date is a difficult task can be identified in the fact that departmental work is driven by third-party funded projects. Therefore, not only the projects themselves, but also project staff profiles are primarily of a temporary nature.

Even if inadequately reflected in the organisational chart, the three ZEF Departments (ZEFa, ZEFb, ZEFc) are the heart of ZEF’s organisation. They represent the disciplinary strength of the Centre, and at the same time they serve as the platform for inter-disciplinary action in support of programme delivery (in addition to trans-disciplinary action in collaboration with down-stream, development-oriented institutions). Besides the directorate (see also comments in the following sub-chapter) there is no other formal organisational unit to ensure interdisciplinarity (see also the Panel’s recommendation and suggestions for research). However, with the exception of single comments qualifying the disciplinary set-up as an impediment for interdisciplinarity, most stakeholders, including alumni and senior fellows, were satisfied with the institute’s division into three Departments because they are considered to offer a broad disciplinary spectrum from the humanities to the natural sciences.<sup>16</sup> As long as these disciplines are preserved, external stakeholders as well as the Review Panel support ZEF’s intentions and efforts to strengthen the disciplinary vigour and breadth, e.g. by big data/geospatial analysis or even adding geography or health etc. as additional disciplines – all under the caveat that substantial additional funds are provided. As long as this is not the case, institutional partnerships seem to be the preferable path.<sup>17</sup>

With regard to personnel resources, the Centre was endowed with three senior professorships at equal level as stipulated in the constitutive document of ZEF (*Senate Concept* of 1995). For internal resource use considerations the dotation of ZEFa was reduced (to W2) with which a first imbalance was introduced into the “*troika*” to the detriment of the cultural and political ZEF agenda. A second, more serious threat to the ZEFa – related agenda are the extended leave periods granted to the ZEFa Department Director (see Annex V) which have had negative effects primarily on the profile projected by this ZEF Department (despite significant outputs of the Department’s research staff which deserve recognition). It is noted that leave periods within and before this review period were granted to other ZEF directors as well (former ZEFc director was granted leave to head the new West-African institution WASCAL, which he helped to found; the director of ZEFb went on leave for several years to head IFPRI) leading to a decline in productivity at least in the case of ZEFb (as reported in the ZEF external Evaluation Report 2010).

<sup>16</sup> The Alumni survey provided a vigorous endorsement of the interdisciplinary set-up of BIGS-DR and implicitly of ZEF: 87% responded to the question “How important was ZEF’s interdisciplinary approach for your doctoral thesis?” with *very high* and *high*; the responses *very much* and *much* to the question “Did ZEF’s interdisciplinary approach add value to your professional career?” were given by 83% of the respondents, and 82% of them consider the three ZEF Departments as the correct mirror of ZEF’s interdisciplinarity approach – this is also the majority opinion (79%) of the “Senior Fellows”.

<sup>17</sup> There were warnings pointing out that currently many institutions are heavily investing into capacities for Big Data analyses. Accordingly, ZEF with its limited resources most likely would not be able to compete. Against this background partnerships would be the better solution to approach this method.

As indicated above and summarised in chapter I, the personnel structure is dominated by non-permanent positions (13 permanent and 59 temporary). Of the 10 permanent positions below W3/W2, some work in administration (finance, IT, PR) and for BIGS-DR, and the remainder located in the three Departments. The Review Panel does have no specific information on every position, but from the total number of staff in non-scientific positions (15.4 FTE) it can be deducted that at least half of this staff is non-permanent. Despite the staff shortage and a continuous search for new funds suited for non-scientific purposes, those staff members that were interviewed showed very high job satisfaction and identification with ZEF as employer. Many of these staff members have been working for ZEF for many years. Permanent scientific staff seems to be allocated unequally between the three ZEF Departments.

Obviously, fluctuation in scientific positions is much higher than in administration, all the more as the vast majority of personnel occupy temporary project-financed positions. Most of the staff that left ZEF (64 people left in the review period) moved on to equivalent or superior positions, including six appointments as Professor or Associate Professor and two appointments as Rector of a higher education institution. Most notably, ZEF Junior Professor Jan Börner who joined ZEF with his own project funds was appointed by Bonn Agricultural Faculty as W3 Professor to match an attractive external offer; noteworthy is that he was co-opted to the ZEF directorate, thus strengthening ZEF's scientific set-up.

Against this background, staff fluctuation is not really worrying but more an indication of scientific achievements. Senior scientists indicated, however, that there is pressure because many have to find their own follow-up financing; some individuals indicated high stress levels caused by extremely short notice on whether there are sufficient funds for extending their contracts. Furthermore, scientific staff appears to be torn between fulfilling their research targets within their project and other tasks at ZEF, such as teaching and supervision.

In general, the Review Panel considers the scientific and non-scientific staff establishment (permanent positions) of ZEF as far below critical mass in view of the ambitious mandate of the Centre.

## 5.2 Leadership, Management and Governance

Four levels of leadership and management responsibility need assessment: ZEF overall; ZEF Departments; third-party funded projects; and BIGS-DR. The Review Panel notes that there is no specific formal agreement on these responsibilities in ZEF (the basic general University rules on academic institutes appear to apply which essentially protect the autonomy of individual professorial chairs).

- The Executive Director of ZEF is accountable for the "common goods" of ZEF (accounts, public relations office, computer services, doctoral studies programme); s/he is speaker of ZEF vis-à-vis the University (Rector), but s/he is not the public speaker of the Centre. The Executive Director (Prof. Dr. Borgemeister, who is currently in office for a two-year period) chairs the ZEF Directorate composed of the three Department Directors and three co-opted personalities (Vice-Rector UNU Europe; Director of Research, BICC [Bonn International Centre for Conversion]; Agriculture Faculty member Prof. Dr. Jan Börner); members of the Directorate are also one delegate of the scientific staff, and one student representative; the Directorate meetings are joined (without voting rights) by the head of the administration, and the leader of the public relations office. Decisions appear to be achieved by consensus rather than by vote.
- Department Directors retain full responsibility for their Department's staff and programme, including third-party projects and their implementation; they arbitrate transactions in the case of projects where sister Departments are involved. Otherwise, third-party funded projects are in design, investor interaction, implementation, reporting and accounting under full responsibility of the Department Director. Assistance in administration comes from the financial department (and indirectly from the University of Bonn), WASCAL administration being an exception in so far as there is some administrative staff in ZEFc.

- BIGS-DR: the coordinator runs the doctoral programme with the *Doctoral programme management team* and reports operationally to the Executive ZEF Director.

The Review Panel considers this leadership and management set-up as suboptimal for the successful positioning and profiling of ZEF as per the original intentions and as per the current mandate of the Centre: as long as the leadership and management set-up of ZEF is viewed as having to serve essentially the mere addition of three basically independent professorships, critical issues for the profiling and strengthening of the Centre as per its strategic mandate cannot be addressed with sufficient vigour and support (see suggestions and recommendations below).

Furthermore, shortcomings in the performance of management and administration are the likely consequence if these types of tasks are perceived merely as an additional burden preventing Directors and senior scientists from doing their “proper job” that is research. To give just two examples: 1) Providing background material and a ZEF progress report in time and in the agreed format for this evaluation has put a major strain on ZEF; despite exerting much pressure, deliveries came “piece by piece” and not always in the expected time and quality. 2) Representatives of one of the most important donors of ZEF communicated to the Review Panel their dissatisfaction with the way ZEF handles non-research tasks. Not only in WASCAL where there seems to be disagreement how far ZEF’s responsibility for institutional capacity building is stretching, but also for other projects the donor would much prefer if administrative matters would not be handled by scientist who have their qualification in other fields. According to one interview partner, cooperation would be much smoother if this problem could be resolved.

The Review Panel considers that an institute that like ZEF has grown considerably in size and meets fundamental challenges needs more professionalism and central coordination in leadership and management.

In the move towards more professionalism the governance body of ZEF (International Advisory Board) can play a supportive role. The provisions of the 1995 *Senate Concept* on the governance of ZEF (“*International Programme Commission*”) have been updated and extended (see “*Rules of the International Advisory Board of the Center for Development Research (ZEF), University of Bonn*”; undated); while the International Advisory Board continues to have an essentially advisory role, it also assumes normative functions in the Centre’s orientation.<sup>18</sup>

### 5.3 Financial Budget

ZEF’s exceptional success in acquiring third-party funding has a downside: Core funding nowhere near kept up with the rise in overall budget volume. The evaluation team of the last review period had already claimed that an increase in institutional support and core funding is crucial for ZEF’s future (see *Evaluierungsbericht 2010*, p. 21). However, instead of improving, the funding structure has significantly deteriorated in the review period 2010 – 2016. While in the former review period the ratio of core funding to external funding declined from 45/55 (2002) to 22/78 (2008), it reached an all-time low with 11/89 in 2013 (13/87 without indirect support for BIGS-DR). In the following years, there was a slight improvement, mainly due to overhead shares (e.g. of WASCAL funds) transferred to ZEF. However, overall core funding during 2014 – 2016 was still over 1 Million € lower in absolute terms than in the year 2002.

Some comparative figures are given here just to illustrate the dramatically unsustainable state of ZEF’s funding structure: According to the latest figures, third-party funding in 2013 contributed 16,3% to the tertiary education system in Germany<sup>19</sup>; for 2011 the ratio of core funding to third-party

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<sup>18</sup> These Rules stipulate that “*The Board advises on all ZEF affairs, especially that (1). The Center has relevant objectives and programs that are consistent with its goals and purposes as defined by the University of Bonn, (2). The Center is managed effectively in harmony with agree-upon objectives, programs and budgets, (3). The Center is staffed with high calibre people and meets international quality standards. The Board will confine its activities to the policy and strategic level, not management aspects. It will participate in the development of long/medium term plans; advise on program objectives, strategy and budgets; monitor program progress; ....*”.

<sup>19</sup> See Statistisches Bundesamt 2016: *Hochschulen auf einen Blick*, p. 42

funding for German tertiary institutions is reported as 76/24; the university that is reported to be most dependent on third-party funds is the technical university RWTH Aachen with over 40 percent of third-party funding, while the cultural and social sciences usually have a much stronger core funding basis<sup>20</sup>. Although the extension of third-party funding has been an explicit objective in German tertiary education policy, the evolving structures that still are far better than ZEF's position are considered alarming by a rising number of stakeholders. Certainly, ZEF is not really comparable to an average university institute. However, institutes that have greater similarities to ZEF also have a much broader core-funding basis. DIE, the German Development Institute, according to its last evaluation by the German Wissenschaftsrat 2007, had core financing of 90% in 2004, when ZEF already was 66% financed by third-party funds. In 2015, DIE that receives core funding from the German Government and the Federal state of North-Rhine-Westfalia, was still core-funded at more than 50%,<sup>21</sup> although its capacity building activities are less prominent in its activity portfolio than at ZEF. The Arnold Bergsträsser Institute, perhaps an institute most similar to ZEF, does not publish its annual figures. However, it underlines in its latest annual report that core funding has to keep up with its rising portfolio to not endanger quality.<sup>22</sup>

High dependence on third-party funding goes along with uncertainty about future budgets, strongly affecting non-permanent staff. To get a rough idea about ZEF's future funding security, the Review Panel estimated the flow of funds from third-party funded projects acquired before the end of the review period (31.12.2016). It was assumed that there is a linear flow of funds over the project duration, which seems reasonable if the money is mainly spent on personnel. It becomes apparent that ZEFb has the highest future funding security, followed by ZEFc while ZEFa shows no third-party funding acquired before end 2016 for the years after 2018.

**Table II.2: Funding for the years 2017 onwards supplied by third-party funded projects acquired before 31.12.2016**

Department	Total (in Euro)	Flow in 2017 (estimate)*	Share 2017 %	Flow in 2018 (estimate)*	Flow in 2019 – 2021 (estimate)*
ZEFa	3,549,823.55	1,020,664.36	12.8	358,351.49	----
ZEFb	19,291,265.15	3,984,923.96	50.0	2,805,236.53	3,734,065.22
ZEFc	11,619,343.69	2,960,062.30	37.2	1,582,643.53	1,336,981.27
Sum	34,460,432.39	7,965,650.52	100.0	4,746,231.55	5,071,046.49

\* all estimations are based on the assumption that there is a linear flow of funds over the duration of the project; as some projects include money to be transferred to partners the above numbers give the upper bound.

The Review Panel noted that the annual budget figures provided by ZEF are not for all years identical to the figures provided in ZEF's annual reports. Further, there was no way to transfer the list provided on the financial volumes of all projects into annual flows of funds. That is why the Review Panel based its projections for the years 2017 onwards on the assumption of linear flows.

To close with a positive remark on finance: It is considered exemplary that ZEF in its annual reports discloses all sources of funding. This is a core criterion applied by the *Transparify Initiative* that supplies an annual ranking of Think Tanks worldwide on their financial transparency. However, information on the expenditure structure, which is another transparency criterion, is not provided by ZEF because projects are administered following the accounting procedures of Bonn University.

<sup>20</sup> See Vogt, Gerhard 2014: Der Druck wächst – Drittmittelfinanzierung an deutschen Hochschulen; in *Forschung und Lehre* 2014.

<sup>21</sup> See DIE Jahresbericht 2015 – 2016, [https://www.die-gdi.de/fileadmin/user\\_upload/pdfs/ueber\\_das\\_DIE/DIE\\_Jahresbericht\\_2015-2016\\_DE\\_Web.pdf](https://www.die-gdi.de/fileadmin/user_upload/pdfs/ueber_das_DIE/DIE_Jahresbericht_2015-2016_DE_Web.pdf)

<sup>22</sup> See Arnold Bergstraesser Institut, Jahresbericht 2016, p. 5: „Gleichzeitig ist die seit Jahren eingefrorene Grundfinanzierung des ABI problematisch gering und den Aufgaben nicht angemessen.“

## 5.4 Conclusions, Suggestions and Recommendations

When recollecting the findings of the previous sub-chapters and taking the heavy challenges faced by ZEF in finance and management into account, the Review Panel is impressed by ZEF's achievements. Although this gives some cause for an optimistic outlook, the Review Panel is deeply worried about ZEF's future. The Panel considers the current state of affairs as unsustainable and putting ZEF's future at risk, if not in the short term then certainly in the longer term. ZEF in its management and personnel structure shows many features of chronic underfunding in core finance or overfunding in third-party funds. The challenges caused by its financial structure are exacerbated by extended periods of director absence, structural inequalities between the three ZEF Departments as well as the upcoming challenge of finding successors to two Department directors.

In view of these challenges, the Review Panel strongly recommends:

**Recommendation 7:** The Review Panel strongly recommends raising ZEF's core funding considerably and exploring all alternatives to do so (Federal Government, State of NRW, Federal Ministries, University of Bonn, e.g. via larger ZEF overhead shares of third-party funds, and joint ZEF / Faculty (junior) professorships, etc.).<sup>23</sup>

**Recommendation 8:** ZEF and the Rectorate of Bonn University is encouraged to explore alternative models that would allow to move to a more centralised and professional management (including management of projects and project personnel).

**Recommendation 9:** The Review Panel advises that ZEF and the Rectorate of Bonn University undertake the search process for the two director successions in parallel and sufficiently early to allow smooth hand-over without extended periods of vacancies. The equality of the three director positions (W3) should be restored and they should be equally equipped with permanent scientific staff positions.<sup>24</sup>

The Review Panel certainly recognizes the substantial challenge faced by the ZEF Management and Board when addressing the Panel's suggestions and recommendations. The Review Panel encourages, however, ZEF Management to involve scientific personnel to the extent feasible in conceptual work, and to invite the growing array of associated scientists ("Senior Fellows", guest lecturers) in new partnership arrangements for sharpening the shared agenda.

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<sup>23</sup> ZEF may want to seek in-depth information on how IDS located at the University of Sussex copes with its lack of core funding.

<sup>24</sup> To the extent legally feasible, new appointments should be linked to stricter conditions for academic leave of absence.

## Annex I: Review Panel and Terms of Reference of the Review

### Review Panel

- Prof. Dr. Eva Terberger, University of Mannheim, on academic leave of absence to head the evaluation department at KfW Development Bank, Germany (team leader of Review Panel);
- Prof. Dr. Rashila Ramli, Director of Institute of Malaysian and International Studies at Universiti Kebangsaan, Malaysia;
- Prof. Dr. Samuel C. Jutzi, former Director of Animal Production and Health Division, FAO, Rome, Italy.

## **Terms of Reference (ToRs) for the 2017 external evaluation of ZEF**

Building upon the findings of and the recommendations by the last external review of ZEF in 2010, and considering the 'maturity' the Centre has achieved since its foundation in 1997, the main objective of the forthcoming 3<sup>rd</sup> external review would be to examine where we stand in the context of international development research centres and think tanks and possible pathways to further improve and sustain the performance and productivity of ZEF.

### **Objectives and scope**

*The evaluation shall assess,*

- whether the mandate and objectives of ZEF remain relevant
- whether the general strategy pursued and the setting of priorities can be considered useful,
- whether ZEF is managed efficiently and effectively,
- the quality and relevance of ZEF's research,
- ZEF's external impact with regard to research and development organisations at an international, European and national level,
- the quality of ZEF's doctoral students' programme.

*The evaluation shall address both retrospectively and prospectively*

- what has been achieved since the previous evaluation in 2009 and
- the potential for future developments.

*Further,*

- it shall contain recommendations regarding the strategic, organisational, research and employee-related development as well as the financial development of ZEF.

### **ASPECTS TO BE COVERED**

#### ***Suitability of the mission, strategy and priorities***

*The evaluation shall assess:*

- whether the new strategy of ZEF and its three main areas of activity (research, training and transfer of knowledge) are coherent,
- whether the criteria for the determination of the research activities are suitable,
- whether the newly selected thematic priorities are relevant within the academic world and in politics,
- the effectiveness and suitability of the networking strategy with other research institutions and development-political organisations.

#### **Efficiency and effectiveness of the management and the organisational structures**

*The following points shall be assessed:*

- the performance profile of the ZEF directorate,
- the way research priorities are determined,
- how effectively and efficiently the research work is managed and whether quality control is ensured,
- how the training activities are organised and run and how their quality is controlled,
- to what extent the university environment and the university administration improve or limit the development potential of ZEF,
- the entire leadership structure of ZEF, including the role of its international advisory board.

#### **Quality and relevance of the research**

*The evaluation shall assess:*

- the relevance and quality of the research with regard to the central issues of research and development politics,

- to what extent ZEF's potential for inter- and transdisciplinarity is realised,
- whether synergetic relationships with other research institutions have been established.

*In order to measure relevance and quality (i.e. success, effectiveness and innovation), standardised, output-oriented processes should be used for the evaluation, as detailed:*

- the number of scientific publications in peer-reviewed journals and the citation frequency,
- the number of memberships of publishing and journal advisory boards or of advisory boards of scientific institutions by ZEF's senior staff;
- the innovations recognised by the expert public,
- science awards of ZEF junior and senior researchers,
- the quality of the employed senior researchers and their professional background (with regard to internationality, quality of the universities where they obtained their degrees, offers of posts from other universities, research institutions etc.),
- fluctuation of research staff and reasons for this,
- the number and the professional reputation of guest scientists, senior fellows and other scientists at ZEF,
- the relevant project output (in the prescribed time frame),
- the amount of third-party funding acquired for research projects.

#### **Transfer of knowledge and public awareness**

*The external impact of ZEF's research and teaching activities shall be assessed by evaluating these activities themselves. Particular aspects that must be examined are:*

- the success of the "translation" of research results of ZEF into the language of political decision-makers, or, as the case may be, into a language suitable for politics, as well as the communication of such results to political decision-makers at various levels,
- the presence and visibility of ZEF towards the regional, national and international public (e.g. media coverage),
- the quality and the distribution of ZEF publications, newsletters and other activities,
- the quality and significance of conferences, workshops, lecture series with regard to the professional reputation of the invited participants and the participating public as well as the influence on the setting of priorities of other research institutions or advisory institutions in the development field.

#### **Training activities**

*Possible criteria for the assessment of training activities at ZEF include:*

- the strategic positioning of the ongoing doctoral student programme compared to other international programmes,
- the coherence of topics and the suitability of the combination of disciplinary depth and interdisciplinary breadth,
- the quality of the teaching body with regard to teaching experiences, internationality, professional reputation,
- the quality of the students participating in the programme with regard to educational and professional background and performance profile,
- the quality of the cooperating institutions in the doctoral students' research phase,
- the role of the programme with regard to the international reputation of ZEF, its networking activities and the transfer of knowledge.

ZEF will provide the review team in early 2017 will an extensive report compiling the Centre's R&D and capacity building achievements during the reporting period as well as a strategic outlook. The team is expected to visit ZEF for 2-3 days in May 2017, and submit a draft report of no more than 25-30 pages to the Chair of ZEF's Advisory Board in time for the 2017 ZEF Advisory Board meeting.



## Annex II: Time Schedule – On-Site Visits

<b>ZEF Evaluation 2017</b>								
<b>Appointments</b>								
<b>Name</b>	<b>Position</b>	<b>Organization</b>	<b>Address</b>	<b>Email</b>	<b>Meeting Partners</b>	<b>Day</b>	<b>Time</b>	<b>Location</b>
<b>MAY 30</b>								
<b>Friedrich R. Wacker</b>	Leiter Unterabteilung „Internationale Zusammenarbeit, Welternährung“ (international cooperation, nutrition)	Bundesministerium für Ernährung und Landwirtschaft (BMEL)	Rochusstraße 1 53123 Bonn	<a href="mailto:ual62@bmel.bund.de">ual62@bmel.bund.de</a>	Jutzi	May 30	time pending	Telephone conversation from Sternhotel Bonn to Berlin (BMEL): 030 / 18529-3452
<b>MAY 31</b>								
<b>Borgemeister / von Braun / Youkhana</b>	ZEF Directorate		<b>Opening meeting at ZEF</b>		all 3 evaluators	May 31	08.15-08.45	Room 1.049
<b>Christian Borgemeister</b>	ZEF Director (ZEFc)		<b>One-on-one meeting with all three evaluators (40 min each)</b>		one-on-one	May 31	08.45-10.45	Room 1.038
<b>Joachim von Braun</b>	ZEF Director (ZEFb)		<b>One-on-one meeting with all three evaluators (40 min each)</b>		one-on-one	May 31	08.45-10.45	Room 1.034

<b>Eva Youkhana</b>	ZEF Director (ZEFa)		<b>One-on-one meeting with all three evaluators (40 min each)</b>		one-on-one	May 31	08.45-10.45	Room 1.019
<b>Dr. Günther Manske</b>	Coordinator	ZEF Doctoral Program	ZEF	<a href="mailto:g.manske@uni-bonn.de">g.manske@uni-bonn.de</a>	all 3 evaluators	May 31	11.00-12.15	Room 1.049
<b>Dr. Martin Rieland / Gregor Laumann</b>	Project Management (Projektträger im BMBF)	Deutsches Zentrum für Luft- und Raumfahrt (DLR)	Heinrich-Konen-Straße 1 53227 Bonn	<a href="mailto:martin.rieland@dlr.de">martin.rieland@dlr.de</a> <a href="mailto:gregor.laumann@dlr.de">gregor.laumann@dlr.de</a>	all 3 evaluators	May 31	13.00-15.00	pick-up at reception > ask for Mr. Laumann
<b>Dr. Stefan Schmitz</b>	Ernährung, Landwirtschaft, Ländliche Entwicklung (nutrition, agriculture, rural development)	Federal Ministry for Economic Cooperation and Development (BMZ)	Dahlmannstraße 4 53113 Bonn	<a href="mailto:stefan.schmitz@bmz.bund.de">stefan.schmitz@bmz.bund.de</a>	all 3 evaluators	May 31	15.15-16.00	pick-up at reception > Mrs. Anisa El-Battahi
<b>Dr. Hans-Joachim Preuß</b>	Vorstand (Board)	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ)	Friedrich-Ebert-Allee 36 + 40 53113 Bonn	<a href="mailto:info@giz.de">info@giz.de</a>	all 3 evaluators	May 31	17.00-17.45	Friedr.-Ebert-Allee 36; pick-up at reception > Mrs. Weber
<b>JUNE 1</b>								
<b>Prof. Dr. Michael Hoch Prof. Dr. Stephan Conermann</b>	Rektor Prorektor	University of Bonn	Argelanderstraße 1 53115 Bonn	<a href="mailto:rektor@uni-bonn.de">rektor@uni-bonn.de</a>	all 3 evaluators	June 1	08.30-09.15	Argelanderstraße 1
<b>Gabriele von Fircks</b>	Director DAAD Jordan	German Academic Exchange Service (DAAD) Jordan	Amman - Jordan	<a href="mailto:gabriele.fircks@daad-jordan.org">gabriele.fircks@daad-jordan.org</a>	all 3 evaluators	June 1	09.30-10.15	Skype / Telephone
<b>Prof. Dr. Mathias Becker</b>	Plant Nutrition / INRES	University of Bonn	Karlrobert-Kreiten-Straße 13	<a href="mailto:mathias.becker@uni-bonn.de">mathias.becker@uni-bonn.de</a>	all 3 evaluators	June 1	10.15-11.00	Room 1.049

			53115 Bonn					
<b>Prof. Dr. Detlef Müller-Mahn</b>	Department of Geography	University of Bonn	Meckenheimer Allee 166 53115 Bonn	<a href="mailto:mueller-mahn@uni-bonn.de">mueller-mahn@uni-bonn.de</a>	all 3 evaluators	June 1	11.15-12.00	Room 1.049
<b>Prof. Dr. Conrad Schetter</b>	Director for Research	Bonn International Center for Conversion (BICC)	Pfarrer-Byns-Straße 1 53121 Bonn	<a href="mailto:c.schetter@uni-bonn.de">c.schetter@uni-bonn.de</a>	all 3 evaluators	June 1	12.30-13.30 (Lunch)	Restaurant Speisesaal
<b>Prof. Dr. Jakob Rhyner</b>	Vice-Rector in Europe and Director UNU-EHS	United Nations University - Institute for Environment and Human Security	Platz der Vereinten Nationen 1 53113 Bonn	<a href="mailto:rhyner@ehs.unu.edu">rhyner@ehs.unu.edu</a>				
<b>All three reviewers meet with a group of senior scientists of ZEFa/b/c:</b>			<b>ZEFa</b>	-	all 3 evaluators	June 1	13.30-15.45	Room 1.049
			Irit Eguavoen	-				
			Papa Sow	-				
			Till Stellmacher	-				
			<b>ZEFb</b>	-				
			Heike Baumüller	-				
			Nicolas Gerber	-				
			Alisher Mirzabaev	-				
			<b>ZEFc</b>	-				
			Tina Beuchelt	-				
			John Lamers	-				
			Jan Henning Sommer	-				

<b>All three reviewers meet with a group of junior scientists of ZEFa/b/c:</b>			<b>ZEFa</b>	-	all 3 evaluators	June 1	16.00-18.15	Room 1.049
			Rabia Chaudhry	-				
			Anis Fellahi	-				
			Darius Mwingyine	-				
			<b>ZEFb</b>	-				
			Pablo Evia	-				
			Tekalign Gutu Sakketa	-				
			Sundus Saleemi	-				
			<b>ZEFc</b>	-				
			Juliet Wanjiku Kamau	-				
			Denise Matias	-				
			Nicholas Moret	-				
<b>JUNE 2</b>								
<b>Mathias Mogge</b>	Vorstand Programme (Board)	Deutsche Welthungerhilfe e.V.	Friedrich-Ebert-Straße 1 53173 Bonn	<a href="mailto:florence.boudie@welthungerhilfe.de">florence.boudie@welthungerhilfe.de</a>	all 3 evaluators	June 2	08.00-08.30	pick-up at reception > Mrs. Florence Boudie
<b>Dr. Imme Scholz</b>	Deputy Director	German Development Institute / Deutsches Institut für Entwicklungspolitik (DIE)	Tulpenfeld 6 53113 Bonn	<a href="mailto:imme.scholz@die-gdi.de">imme.scholz@die-gdi.de</a>	all 3 evaluators	June 2	09.30-10.30	pick-up at reception > ask for Dr. Scholz

<b>All three reviewers meet with ZEF administrative and finance team:</b>				Alma van der Veen (PR) Karin Hagedorn-Mensah (Finances/HR) Ludger Hammer (IT) -	all 3 evaluators	June 2	11.00-12.00	Raum 1.049
<b>Lunch / internal meeting of the reviewers</b>						June 2	12.15-15.00 (incl. lunch)	ZEF canteen / room 1.049
<b>Wrap-Up with ZEF Directorate</b>					all 3 evaluators	June 2	15.15-16.15	Room 1.049
<b>JUNE 14</b>								
<b>Prof. Dr. Hans van Ginkel</b>	Chair ZEF International Advisory Borad	Utrecht University	Heidelberglaan 2 3584 CS Utrecht Niederlande	<a href="mailto:J.A.vanGinkel@uu.nl">J.A.vanGinkel@uu.nl</a>	Eva Terberger	June 14	9:30 - 11:45	Hotel Königshof, Bonn
<b>Prof. Dr. Conrad Schetter</b>	Director for Research	Bonn International Center for Conversion (BICC)	Pfarrer-Byns-Straße 1 53121 Bonn	<a href="mailto:c.schetter@uni-bonn.de">c.schetter@uni-bonn.de</a>	Eva Terberger	<b>June 14</b>	12:15 - 13:30	Lunchmeeting at Café Museum
<b>Dr. Gisela Helbig</b>	Global Change	Federal Ministry of Education and Research (BMBF)	Heinemannstraße 2 53175 Bonn	<a href="mailto:gisela.helbig@bmbf.bund.de">gisela.helbig@bmbf.bund.de</a>	Eva Terberger	June 14	14.00-15.00	pick-up at reception > ask for Dr. Helbig

## Annex III: Research Examples ZEFa, ZEFb, ZEFc

### Annex IIIa Project Example ZEFa: *CrossRoads Asia*

*Key figures:* duration 2011-2016, donor: BMBF, volume: 2.16m €

*Project acquisition:* *CrossRoads Asia* was initiated by a ZEF senior and a ZEF junior scientist who decided on answering to a BMBF call in area studies. As the call required a professor to submit the application and the director of ZEFa was absent they partnered with a professor from Humboldt University. Right from the beginning it was agreed, however, that in the case of success ZEFa would be the project coordinator. In a very competitive process *CrossRoads Asia* was invited as one of seven or eight of the more than 70 parties that had answered the call to submit a full proposal. It was selected as one of ca. 50% successful full proposals.

*Originality/innovation:* The key scientific achievement of *CrossRoads Asia* is its innovative approach to area studies: Instead of taking a clearly specified region as the study object, the researchers concentrated on mapping and analysing interregional (crossborder) flows of people (migration), goods and services, cultural attitudes, religious beliefs and dissemination of knowledge. The objective was to investigate the social construction of spatial realities that can be and often are rather different to political boundaries.

*Relevance:* The research concentrated on three topics, represented by three research pillars 1) conflict, 2) migration and 3) development. While the third pillar is of a more overarching nature with an obvious relevance for ZEF's mission, pillars 1 and 2 are of utmost topical relevance when considering the central Asian flashpoints Afghanistan, Pakistan or Iran as well as the current migration flows within and from these areas.

*Method:* Mainly qualitative, incl. many field studies with personal interviews, focus group discussions

*Interdisciplinarity:* Beside ZEFa six cooperation partners participated, representing oriental sciences, ethnology, geography, political sciences and philology. No other ZEF department was represented, although economics (ZEFb) would have been a suitable partner, but the director of ZEFb was on leave at the time of project conception. As the rules of BMBF restricted fund recipients to German research institutions, expertise from other countries and particularly from Asia was gained via 20 to 30 visiting fellows. The organisation into 3 research pillars assured that disciplines actually interlinked their work on a specific topic. Interdisciplinary expertise was assured by ZEFa's leading role.

*Research output:* 253 journal publications, 25 books, 37 working papers and 6 international conferences, related publications are likely to follow. As it is characteristic for the social sciences, major results were published in the form of books. Noteworthy, two of the key senior researchers at ZEFa involved in the project were appointed as professors at other research institutions. As a consequence, further research output will be attributed to these institutions – illustrating ZEF's multiplier effect that needs to be taken into account when assessing its research achievements

*Research impact and transdisciplinarity:* The innovative methodology of the project received a wide and positive response in area studies. ZEFa was invited as one of very few competence centres to participate in a conceptual workshop of "Deutsche Forschungsgemeinschaft (DFG)" on the future of regional studies. Many more studies, including research at ZEF, followed or are following this new approach relying on the analysis of flows, also on other continents (Africa, Latin America). BMBF chose *CrossRoads Asia* as one of its three most successful projects in the humanities to be portrayed in a film clip. Although the project's research results have large transdisciplinary potential, no major influence on processes of social change or political approaches is perceptible (yet). According to an interview partner, a lever for influencing political practice was largely missing, all the more as political intervention logics are largely focussed on and dominated by the boundaries and interests of national states. However, a recently published article of two of the initiators of *CrossRoads*, now both at BICC, received major attention from German politics (*Conrad Schetter, Katja Mielke (2016): Was von Kundus bleibt. Intervention, Gewalt und Soziale Ordnung in Afghanistan* in: PVS Politische Vierteljahresschrift, Seite 614 – 642) – a potential initial spark for transdisciplinary results.

### **Annex IIIb      Project Example ZEFb: *Economics of Land and Soil Degradation (ELD)***

*Key figures:* duration 2010-2012 and 2012-2015, donor: BMZ, volume: 1.2m €

*Project acquisition/background:* The project is associated to, but not explicit part of the international Economics of Land Degradation Initiative founded in 2012. BMZ was one of its key initiators, the initiative's secretary is hosted at GIZ, and it is supported by a large international research consortium, IFPRI and ZEF being two of its members. The ELD Initiative was largely influenced by a project of IFPRI and ZEF (2010/2011) developing a method to calculate the economic costs of land degradation that was implemented in the 2012-2015 IFPRI/ZEF project in several countries, complementing the research explicitly carried out under the ELD Initiative.

*Originality/innovation:* The innovative idea in the ELD projects is to apply the total economic value approach to the problem of land degradation (all current and future direct and indirect individual and societal costs and benefits). A comparison of the total economic value of action and no action regarding land and soil degradation allows an economic assessment whether it is advantageous to individual investors and/or society as a whole to invest into combating the degradation phenomena closely related to unsustainable use of land and soil resources.

*Relevance:* The research topic is of major importance for several reasons: The quality of land and soil is decisive for food production, major parts of the rural poor live on degraded land, and a decrease of land productivity and an increasing number of crop failures are important drivers of migration, most likely increasingly so in the future, not least due to climate change. Accordingly, increasing knowledge about the extent of land and soil degradation around the globe and about how to efficiently take action in order to rehabilitate land and soil and prevent a further decline is key for development, fighting hunger and poverty and achieving the SDG.

*Method:* Quantitative and qualitative research, including 11 field/case studies worldwide.

*Interdisciplinarity:* Beside ZEFb and IFPRI 11 other research partners are listed, most of these specialised on agricultural economics and linked to the field studies. The team at ZEFb is specialised in agricultural economics, and no other ZEF department is involved. There is cooperation with the institute for remote sensing at Bonn University. Many disciplines are represented in the ELD Initiative. These competencies could most likely be accessed.

*Research output and quality:* The main results were compiled in an open access book: *Economics of Land Degradation and Improvement: A Global Assessment for Sustainable Development* (by E. Nkonya, A. Mirzabaev & J. von Braun, J. 2015. Springer International) with 141,458 downloads (16/06/2017), about 5 peer reviewed journal articles and book chapters with probably more to come as there are quite a few discussion papers as well, and about 11 policy briefs. Counting is sometimes difficult as publications from related projects are listed on the ELD ZEF page as well.

*Research impact and transdisciplinarity:* The impact of ELD research is impressive even to date. The basic research of IFPRI/ZEF in 2010/2011 helped to spark-off the ELD Initiative that – together with the complementary IFPRI/ZEF research 2012-2015 – for the very first time allowed to assess the degree of land and soil degradation around the globe. The research methodology – comparing costs and benefits of action and no action – offers an excellent basis for transdisciplinarity. Against this background, publishing open source and summarising case study results in policy briefs seems an adequate choice, even if this might reduce the probability of publications in high-ranked journals. Nothing is known whether the governments of the case study countries reacted to the ELD findings. Every policy brief offers some advice for government action, however, even if it is sometimes a bit too general. The project was honoured by a best poster and a best paper award and was honourably mentioned for the PEGNET Best Practice Award 2016 that honours outstanding cooperation in development research and practice.

## **Annex – IIIc Project example ZEFc: West African Science Service Centre on Climate Change and Adapted Land Use (WASCAL)**

### WASCAL – General Set up

Funding from BMBF:

- preparation phase 01/02/2010-29/02/2012: 8.83m €;
- main phase 01/10/2012-29/02/2016/: 26.63m €;
- consolidation phase 01/03/2016-31/03/2017: 2.10m €;
- coordination 01/08/2016-31/12/2017: 0.63m €)

With over 38m € WASCAL was the largest project ZEF ever acquired. It was financed by BMBF; the financial volume includes funds that were distributed via ZEF to other project partners in West Africa and Germany.

Under the lead of ZEFc and closely linked to ZEFc's former director Prof. Dr. Paul Vlek, WASCAL, at least in a wider sense, was a kind of follow-up project to the Global Change and Water Resources in West Africa (GLOWA) project in the Volta basin that was finalized in 2009/10.

WASCAL was and still is implemented by a consortium of West African and German partners. After a preparation phase of two years WASCAL was established as a formal institution in February 2012. Beside Germany, the foundation document was signed by 10 West African Governments: Bénin, Burkina Faso, Côte d'Ivoire, The Gambia, Ghana, Mali, Niger, Nigeria, Sénégal, Togo. After six of these signing members had recognised the WASCAL constitution WASCAL received the status of an international bilingual West African institution by the Secretary General of ECOWAS in 2013.

WASCAL comprises three closely interlinked components:

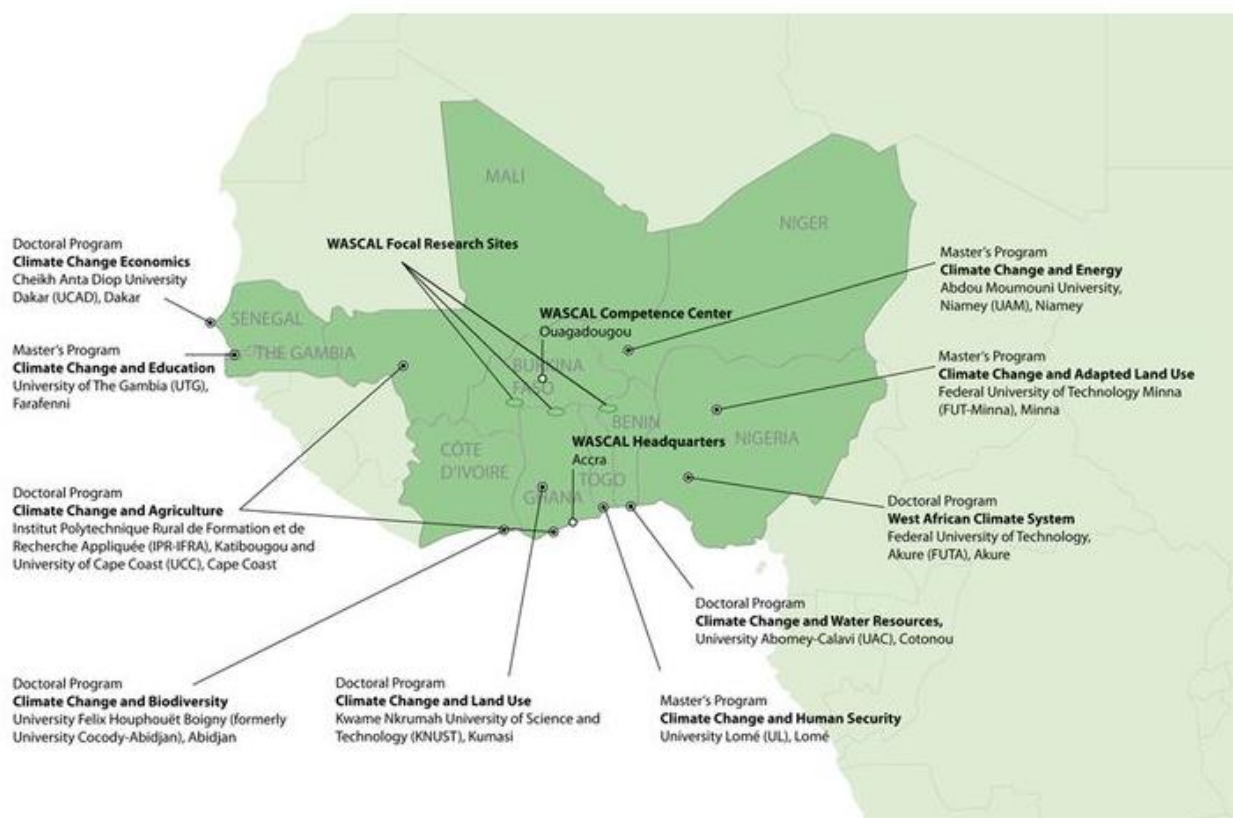
- The Competence Centre (CC), a new institute established in Ouagadougou, Burkina Faso, is supposed to function as a West African research hub carrying out own research, cooperating with international research partners, supplying data on climate related issues and giving science-based services to Governments and other stakeholders.
- Complementing the agenda of the Competence Centre, the core research programme focused on climate related research in West Africa carried out by German-West African research partnerships.
- The Graduate School Programme (GSP) was to contribute to the education of the next generation of West African scientist and policy makers via the creation of new graduate schools in the West African WASCAL partner countries. By now 6 PhD and 4 master programmes were created at 10 universities in 9 WASCAL partner countries each covering a different facet of the WASCAL topic of climate change and adapted land use (see map).

WASCAL's headquarter is located in Accra, Ghana. The headquarter is home to the Executive Director, the Director of Capacity Building as a kind of head and coordinating body for the GSP as well as WASCAL's administration and finance.

WASCAL is lead by a Governing Board that provides a seat for each West African member country, Germany and for ECOWAS as an observer. It meets once a year and decides on matters of strategic importance. A scientific advisory board of nine renowned international members offers scientific guidance to WASCAL. As a further governing body, WASCAL's constitution foresees the Council of Ministers of the WASCAL member countries that decides on matters relating to the constitution agreement.



## WASCAL sites and locations



source: [www.wascal.org](http://www.wascal.org)

### WASCAL – Progress Summary

By May 2017 WASCAL has developed as follows:

#### *Competence Center*

The CC is the component of WASCAL that has been slowest in its development but it seems to have been progressing during the last year, since a new director of research was appointed. About 20 scientists work at CC now (including senior researchers, junior scientists and research assistants) as well as about 8 technical and administrative staff. The transboundary Observation Network is still in the process of development. Some hydrological stations seem to be in place in three watersheds, 50 automatic weather stations were to be implemented in 2016. A basic regional interdisciplinary observation network seems to be in place as well. Data services do not seem operational yet. CC's development suffered from management fluctuations, financial bottlenecks and infrastructure deficiencies, most importantly an unstable internet-connection. Nevertheless, in 2016 CC-researchers published 13 and submitted 12 peer reviewed journal articles, 5 working papers, one book and 5 book chapters, and scientists were involved in third-party funded projects with a total volume of about 6 Mio €. Comparable numbers for the preceding years are unknown, furthermore it is not known how much of these achievements were driven by the partners of the core research programme.

The CC is supported by a technical consultant that besides other tasks was to supervise the construction of a new 4000m<sup>2</sup> CC-building projected for the WASCAL main phase and to be implemented via KfW development bank. The Government of Burkina Faso donated a site for this building in a suited area of Ouagadougou. The construction activities have not started yet.

### *Core research programme*

Phase I of the core research programme ran from 2012 to the end of 2016. The final report has just been submitted to BMBF.

The research was grouped into 6 research clusters: 1. climate and weather; 2. landscape dynamics; 3. agricultural systems; 4. markets and livelihoods; 5. risk management, and 6. integrated assessment. According to ZEF's progress report for the external evaluation 2010-2016 these six research clusters were subdivided into 21 work packages (and 56 studies). Beside the CC and ZEF, eleven other predominantly German co-operation partners were involved: Department of Geography, University of Bonn; Faculty of Agriculture, University of Bonn; Department of Geography, University of Augsburg; Institute of Biological Sciences/Botany, University of Rostock; Faculty of Biology, University of Würzburg; Department of Geography and Geology, University of Würzburg; Deutsches Klimarechenzentrum (DKRZ), Hamburg; Deutsches Zentrum für Luft- und Raumfahrt (DLR) – Deutsches Fernerkundungsdatenzentrum (DFD), Oberpfaffenhofen; Forschungszentrum Jülich (FZJ); Karlsruher Institut für Technologie (KIT) – IMK-IFU, Garmisch-Partenkirchen; United Nations University - Institute for Environment and Human Security (UNU-EHS).

ZEF was the overall coordinator of the programme. Furthermore, ZEF (mainly ZEFc, but also ZEFb) and the University of Bonn coordinated 14 of the 21 working packages. All in all, 27 post doc researchers and 34 doctoral students were involved in conducting the 56 studies completed under the research programme's phase I. 14 senior researchers paid by WASCAL were located at ZEF (plus 4 not paid by WASCAL).

Almost 150 journal articles, 2 books and 15 book chapters as well as many doctoral and master theses are listed under the WASCAL publications, the majority closely related to the core research programme, and many results still wait to be published.

A second phase of the core research programme is in preparation that is not to be coordinated by ZEF, however. Instead, WASCAL is supposed to take over the coordination itself, supervised by BMBF/DLR. It is planned that WASCAL will release a call for applications in 2017, most likely open for research institution in all countries. However, the funder BMBF might release some of the funds under the condition of a call restricted to German research institutions.

### *Graduate School Programmes (GSP)*

Under the GSP 6 Doctoral Programmes and 4 Master Programmes were set up in nine of the ten WASCAL member countries, each of them focussing on a different aspect of the WASCAL topic "Climate Change and Adapted Land Use" (see map provided above for location, hosting universities and thematic focus). Each of the 10 schools is supported by a German partner university (ZEFa being the partner of the school in The Gambia and ZEFb being the partner of the school in Senegal), all of these German partners were involved in the core research programme phase I as well. All schools received a grant of 100,000 EUR for initial infrastructure investment that most schools spent on building construction or rehabilitation, a vehicle and IT infrastructure (some schools have not taken full advantage of their grant yet).

Besides its thematic focus and its embedding in a West African network, another unique feature of GSP is formed by the composition of its students: In every student batch, each school admits 10 students, each one of them originating from one of the ten WASCAL member countries.

All study programmes are conducted in English. The time frame for the PhD programme was three years and has been extended to 43 months recently. The programme starts with a language course (3 months, all Francophone students together and all Anglophone students together, English and French respectively), followed by 6 months course work and development of research proposal, 12 – 18 months field work, opportunity to visit research institution in Germany or elsewhere for 6 months, and the remaining time for writing up the thesis. The time frame for the Master programme is two years, one and a half years of course work and half a year of field research and writing of the thesis. All students receive a grant to cover living expenses (PhDs 500 € and Masters 375 € per month)

and a research grant (12,500 € PhDs and 3,500 € Masters). Extra grants are supplied for the stay abroad.

The Directors of each school are members of the host university that select them. The Directors work part-time for WASCAL and receive a top up by WASCAL. Furthermore, WASCAL offers some support for administrative staff and lecturers that come from the host university, other West African countries, the German partner university/ies or elsewhere. Additionally, WASCAL supplies financial incentives for these supervisions. In kind contributions of quite significant magnitudes are provided by the host universities.

By January 2017, of 98 PhD and 60 Master students that were admitted to the WASCAL GSP in two different batches, 81 PhDs and 60 Masters were graduated. 65 doctoral students spent a research visit in Germany, 17 in another country. Publications in peer-reviewed journals were encouraged and achieved by many of the PhDs. In the second half of 2016 a third batch of students (up to 60 PhD and 40 Master students) was admitted. However, not all schools have started a third batch yet (June 2016).

All in all, the GSP is running quite well. They are highly appreciated by host universities. Alumni and students are overall very satisfied. Directors and staff seem highly motivated. Criticism was voiced by several stakeholders concerning only one of the ten schools, complaining about out-dated course work, unmotivated supervisors, adverse incentives of supervision money and a general negligence of students' needs. Minor complaints concerned problems of infrastructure (internet), selection of lecturers, supervision work and thesis topics (often not at the frontier of research) as well as missing support in methods particularly relevant for special thesis topics. One graduate school is planning to transform into a PhD programme because its research oriented Master does not seem to prepare the students optimally for a professional career or a follow-up PhD. Despite of these shortcomings the GSP can be considered as a success story. The appreciation of the GSP is mirrored by the applications for the third batch that were more than seven times higher than the number of grants available.

#### *Administration and finance*

Administration, finance and coordination were almost entirely located at ZEF up to the end of WASCAL's main phase in February 2016. These tasks were so work-intensive that separate staff had to be recruited for the WASCAL administration in ZEFc (up to 8 staff members). During the consolidation phase in 2016, administrative tasks step by step were transferred to the WASCAL headquarter in Accra. 18 members of staff, including staff for IT, for PR, for Finance, secretarial work and the administration and supervision of the GSP work in the headquarter in spring 2017, which is less than before. Their offices are in an over-dimensioned building that belongs to WASCAL (the lot belongs to another institution and was donated without cost for the time WASCAL resides there). Financial flows to WASCAL are administered by KfW since 2016, while Accra has to prepare the budgets.

In hindsight, the funding ministry, its implementing agent and ZEF agreed that the project was too large to be administratively handled by ZEF alone. Unfortunately, the organisation in Accra does not appear to be prepared sufficiently yet for taking over all the responsibilities newly assigned to them.

#### *Overall assessment and outlook*

WASCAL certainly is based on a highly relevant and an almost visionary concept: A research, higher education and service network encompassing the anglo- and the francophone West Africa in a trans-boundary manner, focussed on transdisciplinary and interdisciplinary research concerning all facets of climate change and corresponding adaption of land use, providing research linkages as well as personal linkages within West Africa and internationally.

Considering the few years of its existence, a lot has been achieved in WASCAL. A formal West African Institution was founded under the auspices of ECOWAS, even if not all ECOWAS member states are WASCAL members yet. High-profile research was conducted under the WASCAL umbrella, and almost 150 young academics were educated in the WASCAL GSP. Most of these alumni are employed by now, either in research or in governments, in climate related institutions, in NGOs or elsewhere,

most of them back in their home country or another WASCAL member country. An active network of WASCAL alumni spans the anglophone and francophone West Africa even now.

Unfortunately, WASCAL is threatened by high risks for its sustainability for a number of reasons:

- The process of “institution building” in West Africa is not completed by far. Many management positions in WASCAL were filled with new staff only recently. Nevertheless, a lot of responsibility for the functioning of WASCAL was transferred to Africa already.
- WASCAL’s capacity in research and education still depends heavily on the support of its international cooperation partners. It is open whether these partners will still be willing and able to provide support if they are not supported by WASCAL research grants in parallel.
- WASCAL’s future is almost entirely dependent on external grant funding, even if the host universities of the Graduate Schools provide in-kind support. The dependence on external grants would only marginally improve if all WASCAL member countries would pay their contributions as agreed. However, the non-fulfilment of financial obligations by some member countries bears a new risk: Other donors, and in particular the German donor BMBF who funded almost everything up to now, could interpret such a negligence of financial obligations as a lack of commitment to WASCAL, adversely affecting BMBF’s motivation to contribute further funds.
- Last, but not least – even if BMBF is prepared to support WASCAL for some additional time – it is not able to do so in the long run as according to BMBF’s mission its funds are not to be spent on the alimentation of an institution over the long term.

In the light of WASCALs impressive achievements up to date and its future potential, there seems to be a realistic chance, however, to attract other donors in the medium term. Some steps in that direction were taken successfully already. The Graduate School in Ivory Coast managed to obtain financial support of 5m USD from the World Bank’s African Higher Education Centre’s of Excellence Project. The UN University applied for third-party funding together with its WASCAL cooperation partner in Togo. The new interim Director of WASCAL and former chair of WASCAL’s Scientific Advisory Board has started a major campaign to raise new funds as one of the first activities in his new position. For such efforts to be successful, Germany will have to reduce its prominent role and let WASCAL open up to the international donor and research community.

Whatever development WASCAL will take in the future, it is highly unlikely that ZEF will play the same key role again as in WASCAL’s first phase. This does not diminish the value of ZEF’s vital contribution to WASCAL’s founding and its impressive achievements in the first years of its existence.

## Annex IV: BIGS-DR – Statistical Overview on Completion/Non-Completion Rates

batch	Number accepted	graduated									Total completed	Not completed	Still in programme
		Before 2010	2010	2011	2012	2013	2014	2015	2016	2017			
Before 2010	315	179	21	28	19	10	8	5			270	39/12,4%	6
2010	24					3	5	10			18	4/16,7%	2
2011	31							14	5	1	20	3/09,6%	8
2012	34							2	13	4	19	3/08,8%	12
2013	32								3	2	5	3/09,4%	24
2014	28									1	1	2/07,1%	25
2015	28												28
2016	20												20
<b>Summe</b>	<b>512</b>	<b>179</b>	<b>21</b>	<b>28</b>	<b>19</b>	<b>13</b>	<b>13</b>	<b>31</b>	<b>21</b>	<b>8</b>	<b>333</b>	<b>54</b>	<b>125</b>

## Annex V: Directorship of ZEFa, b, c

ZEF A		ZEF b		ZEF c		Executive Director	
Year	Name	Year	Name	Year	Name	Year	
Oct 1999 - Sep 2002 (2001/2002)	Prof. Dr. Andreas Wimmer (1/2 year Fellow in Berlin > Deputy Director: Dr. Jo- anna Pfaff Czarnecka)	Sep 1997 - Aug 2002	Prof. Dr. Joachim von Braun	Apr 1998 - Sep 2013 (1 year: 2007/2008)  (Apr 2010 - Sep 2013)	Prof. Dr. Paul L.G. Vlek  (Sabbatical > Deputy Director: Dr. Manfred Denich)  (WASCAL Accra, Ghana > Deputy Director: Dr. Manfred Denich)	2005 - 2006	Prof. Dr. Paul L.G. Vlek
		Oct 2002 - Aug 2007	Prof. Dr. Klaus Froberg			2007 - 2008	Prof. Dr. Solvay Gerke
		Sep 2007 - Aug 2009	Prof. Dr. Ulrich Hiemenz			2009 - Apr 2010	Prof. Dr. Paul L.G. Vlek
Oct 2002 - Mar 2003	Prof. Dr. Thomas Bier-schenk	Dec 2009 - Dec 2017	Prof. Dr. Joachim von Braun			May 2010 - 2014	Prof. Dr. Joachim von Braun
Apr 2003 - Mar 2004	Dr. Tobias Debiel					Since Jan 2015	Prof. Dr. Christian Borge-meister
Apr 2004 - Mar 2005	Prof. Dr. Hans-Dieter E- vers			Since Oct 2013	Prof. Dr. Christian Borge-meister		
Since Apr 2005 (Sep 2011-Feb 2012) (Sep 2012-Aug 2013) (Aug 2014-Jul 2017)	Prof. Dr. Solvay Gerke (Sabbatical) (Sabbatical) (Guest Professorship in Brunei)						
Sep 2012 - Mar 2013	Prof. Dr. Conrad Schetter						
Apr 2013 - Jul 2013	vacant						
Aug 2013 - Apr 2015	Prof. Dr. Anna-Katharina Hornidge						
May 2015 - Jul 2015	vacant						
Aug 2015 - Jul 2017	Prof. Dr. Eva Youkhana						

## Annex VI: Survey Questionnaire Results (Alumni, Senior Fellows, Collaborators)

### ZEF Senior Fellows Questionnaire: Selected Results

Responses: 22 (out of 43 contacted)

<b>1. ZEF Program (Department) which you as respondent are associated with:</b>	
Political and Cultural Change (ZEFa)	16.7%
Economic and Technological Change (ZEFb)	62.5%
Ecology and Natural Resources Management (ZEFc)	20.8%

<b>2. Year of taking up Senior Fellowship with ZEF:</b>	
1998	9.5%
1999	4.8%
2001	4.8%
2005	9.5%
2006	4.8%
2010	19.0%
2012	4.8%
2013	9.5%
2014	4.8%
2015	14.3%
2016	14.3%

<b>3. Nationality of respondent:</b>	
German	56.5%
Other (Non-OECD)	26.1%
Other (OECD)	17.4%

<b>4. Gender of respondent:</b>	
female	13.0%
male	87.0%

<b>5. Subject Area(s) of respondent's contribution to ZEF:</b>	
sociology	13.0%
political science	8.7%
social anthropology	13.0%
economics	60.9%
resource economics	30.4%
agricultural economics	34.8%
agriculture	13.0%
forestry	4.3%
biology	4.3%
geography	4.3%
ecology	4.3%
soil science	0.0%
hydrology	8.7%
other: Law, Remote Sensing, Energy conservation and renewable energy, Development Economics, Development Planning, Water Resources Management, Health	30.4%

11. Satisfaction with your association with ZEF as Senior Fellow on a scale from 1(lowest) to 6 (highest)	
	Rating Average
Scientifically	5.10
Institutionally	5.05
Operationally	5.15
<b>Selected comments:</b>	
<ul style="list-style-type: none"> <li>It provides me to interact with a somewhat different group of students than I am normally able to meet. Some have kept up their association even after the lecture period has ended even though there was no formal need to do so.</li> <li>I would like to see more interaction with PhD students on a scientific basis, especially at earlier stages in their PhD career.</li> </ul>	

12. Academic level of ZEF students on a scale from 1(lowest) to 6 (highest)	
	Rating Average
in course work	4.7
in thesis	4.6
<b>Selected comments, particularly on uniformity / disparity / diversity of student batches:</b>	
<ul style="list-style-type: none"> <li>Some of the students in my class were very smart. Unfortunately, they ended up choosing boring and conventional topics for their dissertation. With proper guidance, this could have been done much better.</li> <li>The initial knowledge level of students is very uneven due to their backgrounds. After course work has been completed these differences shrink.</li> <li>The ZEF doctoral programme is one of the best, possibly the best I have experienced in comparison with [...respondent refers to broad and intensive experience that was deleted for reasons of anonymity]. It is very intense in terms of supervision and support. Students differed in terms of language and basic social science knowledge, but the gap was usually closed through the intensive course work at ZEF</li> <li>I have no experience with course work. ZEFc dissertations in my area are almost exclusively application oriented and contain hardly any exciting methodological development. This is not a problem per se as the center is development oriented rather than being an institution with a particular disciplinary focus.</li> <li>It definitely varies greatly, but the research done is absolutely unique. The depth of empiricism based on field work in often very difficult environments is a rarity that makes the work of ZEF outstanding in the German development research landscape. If compared to some of the qualitative social science research conducted in the development context as for example CGIAR institutes, ZEFs students sparkle with empirical depth.</li> </ul>	

13. Areas of any Deficit observed (at Student Level) on a scale from 1(high deficits) to 6 (no deficits)	
	Rating Average
Language	4.7
Basic Knowledge at Entry	4.4
Teaching at ZEF	5.0
Supervision / Tutoring at ZEF	4.3
Facilities at ZEF (Labs, Library, Data, etc.)	5.4
Support (for research thesis) by Home University	4.3
Support (for research thesis) by Host University (Field Work)	4.4
Support (for research thesis) by Degree Granting University	4.8
Support (for research thesis) by ZEF Doctoral Program	5.6
Funding (for research thesis and supervision)	5.3
<b>Selected Comments:</b>	
<ul style="list-style-type: none"> <li>The largest deficit is in the form of mentoring. During my interaction with ZEF mentors, I did not find them particularly motivating and at the vanguard of research. This is to some extent understandable, but it does harm the prospect for bright students. Perhaps, for such students other forms of</li> </ul>	



mentoring could be figured out, for instance, via direct mentoring by ZEF senior fellows. This I see as particularly relevant for ZEF offers full funding including stipend and a handsome grant for field research, which is a luxury. These investments can be put to better use by offering some selected students a better mentoring and pushing them a bit harder.

- diversity of academic background of students. Some had gaps in theoretical knowledge, most had less than satisfactory training in field research methods.
- As the situation varies greatly from student to student, depending on the funding they receive, which country and university they come from and go to, and who the tutor is at ZEF, and which project (if any) the student is part of, it is not really possible to rank them all in one ranking scheme. Yet, my overall recommendation to ZEF would be to invest substantially more into the building of solid supervisory networks, that assure the supervision of students in collaboration with ZEF-in-house tutors, but also assure quality control of the doctoral program as each supervisor is also bound by the standards of his/her own university when the students defend. Currently, a large part of ZEF students get supervised by in-house tutors in the first year of their thesis, until slowly supervisors are found. Some tutors then continue to take on a large or the biggest share of the supervisory burden, some do not. Both forms come with their own challenges. Some tutors are very good and can indeed supervise a student fully. Yet at the time of the defense, this student still needs a supervisor who argues the student through the defense (agrees to use his/her name to get him through the faculty). As many ZEF students are challenged either with the conceptual, or the empirical, or language requirements of a doctoral thesis, each supervisor has to actually be convinced of a thesis and the student in order to bring him/her through the faculty. If a tutor encourages from the beginning on transparent communication and joint supervisory activities with the student and the supervisor, all in the team know their roles and can fulfill them. Yet, if tutors prefer to supervise the students by themselves, keep communication channels closed but expect supervisors to later give their names and assure successful defense in the faculty, the chances that the students do not finish or receive a rather weak mark are much higher in my assessment. Furthermore it should be added, that while some tutors at ZEF are very good in what they do, this does not hold for all and those who are very good are also likely to leave at some stage. Students who lose their tutors rather late in the thesis writing, suddenly find themselves without the known tutor and without a grown relationship to their supervisors. Also here the chances of not finishing or returning to their home country and then not finishing increase. To sum up, I would advise to invest substantially more into maintaining a large network of reliable supervisors on permanent positions, who are then involved in the supervisor-tutor-student relationships and the supervision processes right from the start. I would advise to assure that not a single supervisor supervises more than i.e. 3 ZEF students at any given time (as for the external supervisors) and not more than 6-7 ZEF students at any given time (for the ZEF internal supervisors and professors). Maintaining such a network nevertheless would require openly expressed institutional interest and the valuing of ZEF - external supervisory relationships also from the directors level at ZEF.

**14.-17. With an International R&D perspective, how would you rate each ZEF Department in the Period 2009 - 2016 on a scale from 1(lowest) to 6 (highest), with respect to:**

	ZEFa	ZEFb	ZEFc	ZEF overall
	Average	Average	Average	Average
Scientific /Technical Innovation	4.3	4.9	4.8	5.0
Potential Impact	4.2	4.9	4.8	4.7
Visibility	4.1	5.0	4.8	4.8
in general/overall	4.2	4.8	4.8	4.8

**18. ZEF's Interdisciplinary Approach is largely mirrored in its three Departments Political and Cultural Change (ZEFa), Economic and Technological Change (ZEFb), and Ecology and Natural Resources Management (ZEFc). In your opinion, is ZEF's interdisciplinarity adequate to fulfill its tasks?**

very adequate (6)					not adequate at all (1)	Rating Average
3	12	2	2	0	0	4.84

19. How did, in your experience and from your observation, the three ZEF Departments interact to use interdisciplinary value added? [1 = full strength interaction; 2 = interaction available; 3 = no significant interaction]

	ZEFb	ZEFc
ZEFa	2,1	2,0
ZEFb		1,7

20. What additional discipline(s), if any, would need to be considered for strengthening interdisciplinary gains?

Responses	Frequency
• Energy	1
• Data mining	1
• Nutrition/health	1
• Climate change	1
• Law	2
• Methods: A stronger focus on methodological rigorousness could add to all disciplines	1
• Social psychology, regional planning, geography	1
• Communication	1
• Political economy	1
• Informatics/Theoretical Ecology/Modelling	1

21. The Review Panel noted that disciplinary addition / strengthening was discussed in ZEF with respect to the use of Big Data (mobile phone data, social media data, weather data, satellite images, etc.) in International Development Research and Development Studies, e.g. in the areas of Geography (Physical, Human, etc.) or Climate Change. Would you, in principle, support such a process?

yes	95.0%
no	0.0%
don't know / no opinion	5.0%

22. If the university decided to introduce the topic "BIG DATA" as an additional discipline, how should it be incorporated?

as a separate ZEF department	15.0%
into an existing ZEF department	35.0%
no preference	10.0%
other (please specify)	40.0%

**Selected comments:**

- It all depends on the type of data. If the task is to be able to combine heterogeneous data from different fields of research, this requires a separate unit that has an overview on already existing systems in other institutions and that has enough staff for maintenance of hardware, development of software, development of concepts for data harmonization, archiving, development of use cases etc....
- Across all three existing departments (mentioned by 4 respondents)
- Not as a separate ZEF department, but as a service unit (working closely with the Hochschul Rechenzentrum)
- I doubt that big data could be identified as a "discipline". No doubt that science and its methodology is changing but this does not lead automatically to new discipline(s). Big data will not substitute the lack of ground truthing especially in the part of the world which is in the focus of ZEF.
- Big data is not a discipline, but an instrument. It cannot be in one department. So the best would be a supporting separate department.

**23. If the additional discipline was to be incorporated into an existing Department, into which Department should it be incorporated?**

ZEFa	0.0%
ZEFb	30.0%
ZEFc	5.0%
no preference	40.0%
other (please specify):	25.0%

**Selected Comments**

- This is a tool that should be used in all departments. If a basic support unit should be required it could be located in ZEFc
- An integration into one of the existing departments would make coordination difficult, especially since the academic cooperation between ZEF a, b and c is not optimal. A separate unit would be able to react independently on demands from the Departments, which will change over time according to large funded projects (Drittmittelprojekte)
- Big Data is the new topic in fashion for all interdisciplinary institutes, at least in the German, but also international context. BMBF also very much supports it. Yet, there are currently so many institutes moving in this direction, that we will see a influx of Big Data research units that risk to all be underfunded. For ZEF to move away from its original design of Brundlandts three dimensions of sustainability that are reflected in the current three departments in order to jump onto a development that a whole range of Max-Planck, Helmholtz, Fraunhofer and Leibniz-Institutes are also jumping on, seems to me a very risky and not recommendable decision. Instead, I would rather build on the trilogy of sustainability and seriously think about the fourth dimension (cultural sustainability) that is often neglected in sustainability discussions and yet so pressing for behavioural change discussions. Big Data is a sexy field to develop. Yet, it is cost intensive and many competitors of ZEF with access to larger budgets are also doing it. I would be seriously concerned that ZEF signs up to an uneven race, at the cost of some of ZEFs core strengths (i.e. the unique empirical research done in development contexts mentioned above).
- Big data is not a discipline, but an instrument. It cannot be in one department. So the best would be a supporting separate department.

**26. ZEF's Institutional Association**

	6 (very much so)	5	4	3	2	1 (not at all)	Rating Average
Is ZEF's association with Bonn University appropriate?	8	6	2	2	2	0	4.80
Should a broader institutional association across the German Federal Republic be explored? (e.g. as a formal joint program with the participation of several universities with significant International Development Research activities)	7	7	1	1	1	2	4.63
Should the creation of a German Federal Institution in charge of International Development Research be explored?	7	3	3	1	2	4	4.00

**27. A Master's Program "International Development" has been suggested to be established at Bonn University to help improve ZEF's Doctoral Program candidate recruitment**

	6 (very much so)	5	4	3	2	1 (not at all)	Rating Average
Does this have your support?	11	5	1	0	2	1	5.00

**Selected comments**

- Such a program should focus on disciplinary rigor, not only interdisciplinary approaches.

- Basic knowledge gaps of candidates could be closed in such a Master's programme. It would also open up an opportunity to test the strength of PhD candidates, coming through the MA programme. There should, of course, be no automatic path from the MA to the PhD programme. There should always be additional candidates from other graduate programmes elsewhere.
- The wheel does not need to be reinvented. The University of Bonn has the master programme ARTS for example. Master programmes should not be "overspecialized". Further if an "international development" master programme would serve as a sort of "filter", then the access to the ZEF PhD programme of external candidates with practical experience would be more difficult.
- A research institute such as ZEF should not maintain a Master's Program in my view. It binds substantial (time) resources, and shifts attention from research to teaching. Instead, ZEF could contribute to one, but the coordination should lie in one of the teaching institutes of the university.

## 28. Selected General Comments / Suggestions / Concerns / Wishes for the Future of ZEF

- I would like to see on the ZEF webpage a clear mission statement and a set of goals and statements as guidelines for ZEF activities
- ZEF's mission is more pressing than ever (see UN 2030 Agenda for Sustainable Development). I wish and hope for ZEF that it can overcome of the instabilities experienced on its leadership level in the past years and rediscover its unique mandate and core strengths: interdisciplinary development research taking into account all dimensions of sustainability. The world, and the German research landscape, needs the type of research done at ZEF.
- In my opinion the future of ZEF depends on having committed leadership with global perspectives, particularly with developing countries. So, I would like to see a committed leadership in all the three departments.
- ZEF is a unique institute at international level with a strongly interdisciplinary outlook that is essential in research on international development.
- ZEF is doing well. Its experience should be exploited to mainstream development research at the federal level.
- ZEF plays an important and productive role as a training institution for developing country students. It also has done path-breaking research in agricultural and resource economics.
- I do not see any particular benefit that ZEF achieves from its affiliation with University of Bonn. The interaction of ZEFb, in particular, with the economics department is hardly existent, which is very unfortunate. I would love to see ZEF as a premier development research institute in Europe.
- The institutional funding of ZEF is insufficient.
- In comparison to other development studies institutes, ZEF has done pretty well. There is, of course, always room for improvement, but I would council against drastic changes or attempts to follow current trends in Entwicklungspolitik of the government or international organisations. There has been a tendency to slip back into narrow disciplinary commitments (ZEFa into anthropology, ZEFb into agricultural economics). This is difficult to avoid, given preferences of the directors and academic staff striving to complete their "Habilitation", which is always narrowly defined by disciplines. The portfolio of the ZEF departments should be broad enough to fulfil the aspiration of academic excellence. ZEF derives its strength from the close connection to the faculties of the University of Bonn. This is an advantage in comparison to other international development "think tanks".
- The existing ZEF model and achievements are well appreciated internationally (ranking etc). Hence evolution rather than revolution is needed. first and foremost, long term job perspective for senior research staff is essential to keep or/and improve the standard.
- ZEF is quite visible also across German boundaries, at least in the field of agricultural economics. This is quite remarkable.
- ZEF is an excellent institution but it is not well known abroad. It suffers from a lack of international recognition. More should be done for that purpose. I thought, for instance, that I (as well as many others) would be contacted for that purpose but nobody ever contacted me on that issue....

## ZEF Alumni Questionnaire: Selected Results

Responses : 122 (out of 356 contacted)

<b>1. ZEF Program (Department) which you as respondent are associated with:</b>	
Political and Cultural Change (ZEFa)	22.3%
Economic and Technological Change (ZEFb)	39.7%
Ecology and Natural Resources Management (ZEFc)	38.0%

<b>2. Nationality of respondent:</b>	
Developing Country Origin	74.8%
German Origin	21.95%
Other Non-Developing Country Origin	3.25%

<b>4. Gender of respondent:</b>	
female	29.8%
male	70.2%

<b>5. Year of doctoral thesis defense:</b>	
1999	1.71%
2000	4.27%
2001	2.56%
2002	1.71%
2003	1.71%
2004	5.13%
2005	7.69%
2006	6.84%
2007	8.55%
2008	1.71%
2009	2.56%
2010	11.11%
2011	7.69%
2012	4.27%
2013	5.13%
2014	4.27%
2015	12.82%
>2015	10.25%

<b>6. Degree granting University:</b>	
Other German University	13.3%
Other Non-German University	3.8%
University of Bonn	77.1%
University of Goettingen	5.7%

<b>7. Senior thesis supervisor: member of ZEF</b>	
yes	75.8%
no	24.2%

<b>8. If senior thesis supervisor is not member of ZEF, please indicate university of senior supervisor</b>	
University of Bonn	56.5%
University of Cologne	13%
University of Goettingen	8.7%
University of Mainz	8.7%
Other	13%

9. Thesis (or chapter/part of thesis) publication in refereed journal:	
yes	81.2%
no	18.8%

10. Subject area(s) of your doctoral thesis:	
sociology	9.8%
political science	9.0%
social anthropology	6.6%
economics	19.7%
resource economics	9.0%
agricultural economics	31.1%
agriculture	27.9%
forestry	8.2%
biology	2.5%
geography	13.9%
ecology	13.1%
soil science	17.2%
hydrology	6.6%
water management & governance	4.2%
<b>other (please specify):</b>	18.9%
Local/regional development, climate, food security, law, land management, development studies, natural resource management, food technology, mining, public policy, disaster management, rural development, plant genetics, energy, statistics	

11.-13: Evaluation of the Doctoral Program on a scale from 1 (very good) to 4 (weak)	
<b>11. Course Work</b>	<b>Average</b>
teaching	1.73
supervision / tutoring	1.66
facilities (labs, library, internet, etc.)	1.51
support / coaching	1.90
<b>12. Thesis preparation</b>	
advice / support on choice of topic	1.54
availability of background information (e.g. literature on topic, information on options for field work, etc.)	1.64
<b>13. Thesis Implementation</b>	
support by Home Institution	2.39
support by Host Institution (Field Work)	2.11
support by ZEF Department	1.67
support by Doctoral Program Team	1.75
support by Thesis Supervisor /Tutor	1.53
support by Degree Granting University	2.29

14. Is there follow-up on your thesis topic within ZEF (e.g. follow-up research projects, media work, policy briefs, etc.)?	
yes	33.6%
no	44.2%
don't know	22.1%

15. Did the periods spent in Germany add value to your professional career?	
very much	71.3%
much	16.5%
little	4.3%
none	1.7%
don't know	6.1%

16. Did the period spent in field work add value to your professional career?	
very much	73.3%
much	23.3%
little	1.7%
none	0.9%
don't know	0.9%

17. Country of your thesis field work	
Bangladesh	3.17%
Brazil	3.17%
Burkina Faso	5.56%
Cambodia	3.17%
China	4.76%
Ethiopia	11.11%
Ghana	11.9%
India	4.76%
Indonesia	3.97%
Kenya	8.73%
Uzbekistan	4.76%
Vietnam	4.76%
Other African Countries	14.29%
Other Asian Countries	9.52%
Other Central Asian Countries	1.59%
Other Latin American Countries	4.76%

18. Did you, after graduation, contact ZEF? (e.g. for sourcing experts or materials, offering involvement in ZEF program, etc.)	
yes	56.1%
no	43.9%

19. How important was ZEF's interdisciplinary approach for your doctoral thesis?	
very high	42.2%
high	34.5%
little	17.2%
not at all	4.3%
don't know	1.7%

20. Did ZEF's interdisciplinary approach add value to your professional career?	
very much	50.9%
much	31.9%
little	12.1%
none	1.7%
don't know	3.4%

**21. ZEF's interdisciplinary approach is largely mirrored in its three Departments Political and Cultural Change (ZEFa), Economic and Technological Change (ZEFb), and Ecology and Natural Resources Management (ZEFc). In your opinion, is ZEF's interdisciplinarity adequate to fulfill its tasks?**

yes	81.6%
no	18.4%

if your answer is no, what additional discipline(s) would need to be considered?

<i>Responses</i>	<b>Frequency</b>
• More collaboration between the departments	13
• Planning (development, urban/regional, social, etc)	1
• Telecommunication and IT application	1
• Public Health	1
• Combining these fields in Global Transformation Studies (to overcome disciplinary silos)	1
• Health and global governance with public policy	1
• Psychology	1
• Development studies and practice	1

**22. The Review Panel noted that disciplinary addition / strengthening was discussed in ZEF with respect to the use of Big Data (mobile phone data, social media data, weather data, satellite images, etc.) in International Development Research and Development Studies, e.g. in the areas of Geography (Physical, Human, etc.) or Climate Change. Would you, in principle, support such a process?**

yes	80.2%
no	4.3%
don't know / no opinion	15.5%

**23. If the university decided to introduce the topic "BIG DATA" as an additional discipline, how should it be incorporated?**

as a separate ZEF Department	10.3%
into an existing ZEF Department	50.9%
no preference	20.7%
other (please specify)	18.1%
Into all departments (10x)	

***Selected Comments***

• I am generally not in favour of departments within ZEF. They further division rather than inter-/transdisciplinarity. Big Data is a cross-cutting issue.
• Big Data is closer to Computer Sciences. It is a tool for analysis and needs experts in specific field to interpret and evaluate the results. It is not a topic of interdisciplinary research. Therefore, I don't support to separate it as another ZEFd. However, if it is in only a department, it will have a barrier for the other department to access to this tool. So, I am thinking of a BiG Data Lab that may be accessed by every department and facilitate ZEF staff and students as a central unit of ZEF.
• Sounds like another buzzword that the university wants to latch onto to show its relevance, without much thought to sustainability of implementation. People come and go so quickly because money is scarce; if this became a new department it would probably be structurally better off as a program.
• As a transversal methodological department / Information Management Center (2x)
• As a department at Bonn University - interdisciplinary involving Math science, computer science and natural science
• It should be transversial, and with strong IT support. Big data is not a discipline, but a phenomenon. Hence it can serve as a mean to better research within/across disciplines; as well as a research object itself (e.g. its relevance for development, its effect on those using it, etc.)
• The application should be Spatial Data Science -- not Big Data, and it should focus on spatial, temporal and probabilistic statistics



**24. If the additional discipline was to be incorporated into an existing Department, into which Department should it be incorporated?**

ZEFa	1.8%
ZEFb	21.8%
ZEFc	21.8%
no preference	26.4%
other (please specify) (selected answers below)	28.2%
• ZEF b&c	5x mentioned
• Depends on the topic. Mobile Phone data might rather fit into ZEFb, while weather and climate data might be more relevant for ZEFc	
• The natural affiliation would be ZEFc, but as it is the geo-imaging work done in ZEFc stays within ZEFc, what would be the difference?	
• I feel ZEFb or ZEFc might have best quantitative skills, but would make it cross-cutting, as a supporting theme cutting across all departments	

**27. Are you at the moment**

employed	97.4%
self-employed	0.9%
not working?	1.7%

**28. Is your current professional position in your home country?**

yes	60.5%
no	30.5%

**29. If your current position is not in your home country, where is it located?**

in Africa	30.5%
in Asia	13.6%
in Latin America or Caribbean	1.7%
in Europe, North America, or Australia	54.2%

**30. In which field is your current professional position?**

in research	53.5%
in research management	10.5%
in Public Service (Government)	15.8%
in Public Service (inter-Governmental/international organization)	6.1%
in Non-Governmental Organization (NGO)	6.1%
in private sector	3.5%
in a Development Bank	2.6%
in education/teaching	1.8%

**31. Was the access to your current professional position...**

conditional on your Doctoral Degree	83.5%
independent of your Doctoral Degree	12.8%
don't know	3.7%

**32. Would you, in hindsight, join ZEF's Doctoral Studies Program again?**

yes	90.3%
no	9.7%

**33. Is the predominance of the English language in the Doctoral Program appropriate?**

yes	100.0%
no	0.0%

### 34. Selected General Comments / Suggestions / Concerns / Wishes for the Future of ZEF

Note that due to the high number of comments, an overview of the most frequently mentioned points is provided. Some more telling comments are retained as quotes and included in italics. Further, singular points brought up by the alumni are provided after the summary part.

#### 1. Lack of an Alumni Network

Around 1/3 of the >60 open comments express the wish to keep in touch with ZEF after graduation in some way or another. It appears from the comments that an Alumni network is virtually non-existent ("The alumni work of ZEF is non-existent, to the detriment of ZEF. Alumni sit in important positions all over the world and could be leveraged for thesis support, field research positions, and more."). Among the suggested form of co-operations are:

- A formal Alumni network
- Being informed about opportunities to be involved in research projects
- Advising and supervising PhD projects
- Alumni conferences/meetings which allow for exchange of ideas & research issues

#### 2. Course work

a) **Time frame:** The 3 years scheduled for the PhD appear to be too short for many, given that course work & field work are to be completed within this time (*"The 3 years is relatively short, specifically for ZEFc students that have to spend nearly 7 months on course-work before starting laboratory or field experiments (that are often dependent on environmental factors). The time left for such a student to run and repeat experiments is limited and as such the quality of science can be compromised. Compared to the USA universities whereby PhD students take about 5 years, it makes USA students an upper hand and more competitive [...]."*)

#### b) Content:

- The quality, in particular of the interdisciplinary course work, is appreciated by many.
- **Methodological courses:** Several alumni would have wished for more, and more specialized, methodological courses and hands-on training. Some suggest stretching the course work part over a longer time period such that research methods could be taken up at a later point in time. (*"Rather than covering so many pieces of knowledge in a short time perhaps more focused knowledge which directly adds to the PhD work should be offered. Students should be taught during the entire period of PhD study without mandatory examinations. For instance, courses on time management, effective writing skills and philosophy of science can be very helpful for successful accomplishment of thesis."*)
- **German language courses:** German courses are perceived as important for integrating into the outside-academia life in Bonn as well as for finding subsequent employment in Germany. Courses should be more intensive and be offered over longer time spans.
- c) **Management/framework:** The organization of the course work part of the PhD appears too tight and restrictive for some: *"Less top down management approaches (too much command and control [...]) for highly experienced doctoral students."*

#### 3. Quality of the PhD program & candidates

- Some suggest that the program should be advertised more and be more competitive, both before and after recruitment (*"Doctoral candidates who cannot perform or fail to deliver need to let go. To receive a PhD should be an achievement and not all candidates may be ready or have the research capacity to reach the final stage. A certain rejection percentage should be acceptable."*)
- Communication of expectations during the recruitment phase could be improved: (*"I know of so many ZEF drop-outs that I think ZEF should ask more seriously of its applicants and candidates what their personal motivation is. Most don't seem to realize the personal and professional cost of writing a PhD and end up giving up -- which is bad for themselves but also ZEF."*)
- It is suggested that only theses which really fit with ongoing projects should be taken on since other topics appear to suffer from a lack of appropriate supervision, as well as resources in general (*"the working place at ZEF for me is very important.[...] I've observed that if students who participate in a specific ZEF project, they usually get a very good working place (office with less people, more space, better working facility). Students like me who do not belong to any project will be placed in one bigger room with crowded working space and very old working facilities. We are more or less like marginal students working far away from the core staff. This has created not good feeling for me or students like me when working there. We don't feel that we have*

<p><i>got equal rights to access the resources as a student at ZEF</i>)</p> <ul style="list-style-type: none"> <li>• Generally, supervision by the directors is perceived as excellent, but the quality of the tutors/senior supervisors appears to vary. The tutoring system itself appears to be inherently problematic: <i>"The structural conditions of university jobs clashes with the mandate of supervision and tutoring. [Tutors leave] ZEF because the project funds run out [so people write their dissertation on their own]. It happens quite often that the tutors have to be changed. Supervisors do nothing so tutors are very important. But tutoring is an extra and unpaid work obligation for the senior researchers. ZEF needs to rethink this."</i></li> <li>• More exchange between students working on related topics should be fostered</li> </ul>
<p><b>4. Interdisciplinarity</b></p> <p>On the one hand, there appears to be a high appreciation of the interdisciplinary approach of ZEF in general, and of the doctoral program in particular. On the other hand, many of the alumni seem to think that interdisciplinarity needs to be strengthened further.</p>
<p><b>5. Network and collaborations with other institutions</b></p> <p>Students appreciate that they get access to a network of other development-related institutions through their association with ZEF. Some suggest pushing this collaboration further and finding more international partners as well, e.g., with CIAT.</p>
<p><b>6. Internationality and development focus</b></p> <p>The diversity of the program is appreciated by many (<i>"The ZEF doctoral program [...] is a great idea for supporting capacity building among development and academic practitioners especially in the developing world."</i>)</p>
<p><b>7. Topics covered</b></p> <p>Several alumni stress that in order to keep the program competitive, more disciplines and diverse topics should be covered.</p>
<p><b>8. Career development</b></p> <p>Especially in the final stages of the PhD or after submission, support in finding subsequent employment in general, and in Bonn in particular, is on the wish-list of several alumni. Career development courses and advisory service are mentioned as options.</p>
<p><b>9. (Lack of) leadership in ZEFa</b></p> <ul style="list-style-type: none"> <li>- Some alumni express concern that the lack of leadership might harm ZEF's (very good) reputation (<i>"The Acting substitutes, while directors were away for a long time, need full devotion to push ZEF forward, I had the impression this was lacking at times. This is understandable as there is a feeling of temporary filling the position. This needs to be addressed."</i>)</li> <li>- The quality of supervision appears to have been compromised in some cases as well (<i>"actual supervision and guidance by my external main doctoral supervisor (arranged by ZEF) during the thesis writing phase unfortunately was negligible (I met him once a year with 10 other PhD students, he did not read drafts, etc.), and ZEFa was not able to provide enough substitute guidance in terms of available personnel and relevant scientific supervision. If supervision cannot be provided by ZEF personnel, the Doctoral Program should attempt to safeguard external supervision also in a qualitative way, in order to guarantee that all students enrolled in the Doctoral Program have equal access to relevant scientific supervision and guidance during the thesis writing phase."</i>)</li> </ul>
<ul style="list-style-type: none"> <li>• <i>"I would think of securing state or University funding for ZEF as due to the project nature of work, many good scientists leave and thus, expertise in one or another area too."</i></li> </ul>
<ul style="list-style-type: none"> <li>• <i>"I have one suggestion, which is to institutionalize a one-two year program for post-docs. In many developing countries, interdisciplinary research remains a public good and is underfunded. Having post-docs to carry out research projects under auspices for ZEF would give prominence to ZEF."</i></li> </ul>
<ul style="list-style-type: none"> <li>• <i>"ZEF appears to be detached from other departments at the University of Bonn. For instance, the only times I went to the faculty I was affiliated to was during the submission of my dissertation. There is a need to strengthen linkages with other related departments at the University."</i></li> </ul>
<ul style="list-style-type: none"> <li>• <i>"Some time ago the appropriateness of the name "Center for Development Research" was dis-</i></li> </ul>

*cussed within ZEF, but never concluded. I would like to see that discussion being taken up again with the aim of abandoning the overused term development and stating ZEF's commitment to contributing to the search of global solutions for global problems.”*

## ZEF Senior Collaborators Questionnaire: Overview

Note that due to the small number of responses from the collaborators questionnaire, the main points are summarized in topical units. Also note that all collaborators who took part in the survey were associated in a formal agreement with ZEFb.

### 1. Association with ZEF

- Collaborators were interacting frequently or semi-frequently with ZEF and were rather satisfied with their association to ZEF (scientifically, institutionally, operationally, and financially).
- On the receiving end, scientific and political benefits were perceived as high, whereas financial benefits were rated slightly lower. Scientific synergies are the main draw for partnering with ZEF, but institutional political convenience and financial opportunities (research funding) also play a role.
- Both contractual research and PhD student supervision were represented in the survey, and academic exchange through PhD students was mentioned as another benefit to the collaborator's home institution.
- Bilateral and flexible bi- and multilateral agreements are clearly favored over only multilateral agreements as modes of cooperation.

### 2. Assessment of ZEF institutional structure & interdisciplinary approach

- ZEF is perceived as maintaining a good network with other relevant institutions to exploit available synergies and is rated as a top institution in comparison to other collaboration partners. Interdisciplinarity appears to be adequately supporting cooperation, although this could be rated higher. Interaction between the departments is rated as 2 on a scale of 1 to 3 for all department-pairs, which could clearly be better.
- The association with Bonn University is unanimously perceived as appropriate. Exploration of a broader institutional association across the German Federal Republic (e.g. as a formal joint program with the participation of several universities with significant International Development Research activities) is supported by most, but not all collaborators, but the idea of creating a German Federal (or even European) Institution in charge of International Development Research, as well as the establishment of a Master's Program "International Development" is unanimously supported.

### 3. "Big Data"

- All collaborators are in favor of disciplinary strengthening with respect to the topic of "Big Data". Most collaborators favor incorporation into an existing department over the establishment of a separate department. ZEFb is perceived as most eligible if the discipline was to be incorporated into an existing ZEF department.