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Roskilde University 2016
International Development Studies
Master Thesis

Dichotomy or Convergence?

Assessing Adaptation Approaches,
Understanding Trends in
Adaptation and Development

Luise-Katharina Richter



Abstract

This thesis assesses how development and adaptation practitioners perceive the relationship between the adaptation approaches community- and ecosystem-based adaptation (CbA and EbA) vis-à-vis scholarly depictions of this issue, and how this relationship is linked to greater theoretical and practical dichotomous debates from the field of adaptation and development. In order to find answers to this question, I conducted ethnographic fieldwork during a conference on adaptation in Dhaka, Bangladesh, and interviewed experts and practitioners working with adaptation and development both as part of and after the time in Dhaka. The thesis utilizes theoretical perspectives from the nature-culture paradigm to generate in-depth explanations for what was found during the data gathering process. The analytical discussion generated the following conclusions: 1. Overall, practitioners perceived of EbA and CbA as belonging together, and regularly even as being deeply intertwined. They often explained this connection by referring to the inseparable relationship that nature and society exist in, on the background that many saw EbA as originating in environmental perspectives, and CbA as stemming from the field of social sciences. As the literature discusses EbA and CbA much more in separate terms, understandings of nature and society as one appear to exist more on a practical than a theoretical level. 2. When taking a closer look at how participants and interviewees described the relationship between EbA and CbA, however, more ambiguous notions on this topic could be found. These proved that symbiotic understandings of nature-society are not yet entirely established among practitioners, but rather are evolving in a transitional process. This aspect could be confirmed by looking deeper into the related dichotomous debate on the link between adaptation and development. 3. This thesis argues that a more active promotion of nature-society synergies is needed, which will move the transitional process towards nature-society forward. Furthermore, it will help to overcome the gap between EbA and CbA theory and practice, and between academia and practice in adaptation-development relationships as found through this research. Only by establishing an understanding of nature-society as intertwined, this thesis claims, more sustainable and effective work in the field of adaptation-development is feasible.

Acknowledgments

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1. Introduction and Problem Area

[...] [W]ords are simply entry points. As I said, they are labels on a door through which you enter the same place (interview Huq 2016).

The global challenges climate change is imposing on humanity cannot be compared to any other public policy problem ever encountered before (Sachs 2015: 394). The phenomenon's existence is undeniable (Intergovernmental Panel on Climate Change 2014: 2) - over the last decades, climatic changes have had major impacts on both humans and nature (Op. cit.: 6). In response, humanity has started to take mitigation efforts all over the globe. However, also adaptation to climate change has gained more prominence in recent years (Olwig 2009: 106). This is due to the fact that the delay with which the warming of oceans occurs as well as the further build-up of greenhouse gases in the atmosphere make future global warming, and therefore climate change, an irreversible reality (Pelling 2011: 6).

Adaptation thus constitutes an inevitable element in the global handling of climate change. *Adaptation* refers here to actions taken in order to prevent or reduce negative climatic impacts on humans and their environments (UNCCD 2012). It can entail a variety of strategic approaches ranging from behavioral change to complex engineered solutions (ibid.). Two of such adaptation approaches, namely ecosystem- and community-based adaptation (EbA and CbA), shall be of focal interest for the thesis at hand: EbA and CbA are often treated as two relatively new and different approaches having “[...] gained currency over the past few years” within the field of adaptation and development (Girrot et al. 2012: 1). However, when looking deeper into conceptualizations and exemplifications of the two approaches, one can easily get confused about what actually distinguishes one from the other. This dilemma will be further elaborated upon after describing this thesis' object of study. As this issue is highly debated in the field of adaptation and development (interview Singh 2016; informal conversation during conference), and as it entails not only greater practical, but also theoretical challenges, shedding light on how practitioners conceptualize EbA and CbA as relating to each other vis-à-vis the literature, and which greater debates such an assessment brings about is what this thesis sets out to do. Therefore, this thesis poses the following research question:

1.1 Research Question and Working Questions

How do practitioners and experts from the field of adaptation and development perceive the relationship between the two adaptation approaches EbA and CbA vis-à-vis the literature, and how are these understandings linked to greater practical and theoretical dichotomous debates from the field of adaptation and development?

The research question will be assessed with the help of the following working questions:

WQ1: How does the literature depict EbA and CbA and the approaches' relationship in more detail, and how are relevant greater controversies discussed on a scholarly level?

WQ2: How do practitioners and experts working with adaptation approaches describe the relationship between EbA and CbA, and how do they argue for the points they are making?

WQ3: Which greater dichotomous debates do practitioners and experts draw from in the context of discussing the relationship between EbA and CbA, how do they do this and which standpoints do they take on in regards to these debates?

WQ4: How can the dichotomous scholarly debate on nature-culture relationships help assess and explain the findings from the above working questions, and which suggestions in regards to a way forward for the field of adaptation and development can be made when drawing from the nature-culture paradigm?

It needs to be stressed at this point that focus in this thesis lies on *conceptualizations* of the two approaches rather than on concrete case examples. The ethnographic fieldwork I performed during a conference on adaptation in Dhaka, Bangladesh, and the interviews I conducted with multiple experts and practitioners, were as such also related to overall debates on the issue rather than to specific case examples. This approach was in line with the conceptual rather than country-specific focus of the conference, and with the fact that the conference participants and interviewees came from very different cultural and geographical backgrounds.

1.2 EbA and CbA – the Object of Study

At this point, EbA and CbA shall be introduced. With further background information on this thesis' object of study, it becomes easier to understand the dilemma of blurriness as briefly introduced above, and its theoretical as well as practical entailments. The sub-chapter at hand as well as the two following ones provide answers to WQ1.

Ecosystem-Based Adaptation

The recognition of adaptation as an essential tool in the face of climate change is relatively new (Dodman & Mitlin 2013: 641). In the early 1990s, adaptation was still understood as the lazy alternative to mitigation efforts (Gore 2007: 240). This perception has clearly changed in recent years. Adaptation entered the mainstream stage the latest in December 2007: Here, it was announced as one of the four central elements in the global fight against climate change during the thirteenth Conference of the Parties of the United Nations Framework Convention on Climate Change in Bali (Dodman & Mitlin 2013: 641).

Ecosystem-based adaptation to climate change arose as part of this growing realm of adaptation. It constitutes a relatively new approach (UNCCD 2012), which is more and more embraced by international developmental and environmental institutions (Girod et al. 2012: 11). This is due to the fact that EbA is applicable in both developed and developing countries (Mant et al. 2016: 5), and is highly cost-effective and adjustable to climatic impacts that are sometimes hard to predict (Colls et al. 2009: 1). The literature particularly emphasizes these abilities in comparisons with technical, engineered adaptation solutions (ibid.). EbA is officially defined as the use of “[...] biodiversity and ecosystem services as part of an overall adaptation strategy to help people adapt to the adverse effects of climate change” (Secretariat of the Convention on Biological Diversity 2015: 1). This normally entails the management, restoration or conservation of ecosystems (Duraiappah et al. 2005: 10). By making and keeping an ecosystem more resilient, it can continuously provide for ecosystem services, which in turn are needed to increase resilience and allow for more sustainable adaptation and development among populations affected by climate change (Naumann et al. 2013).

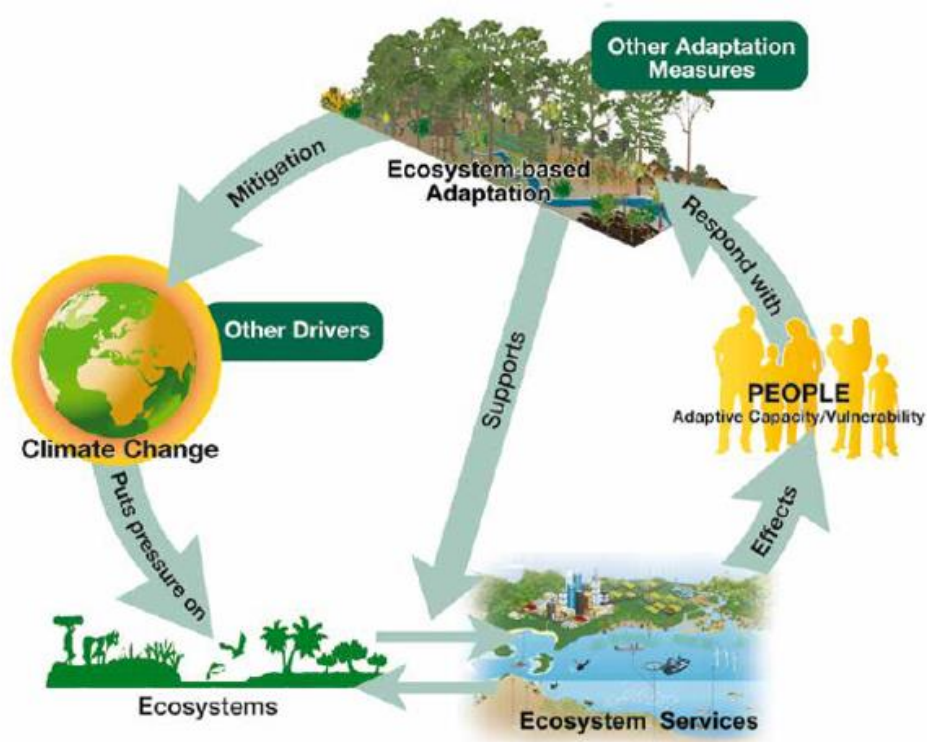


Figure 1: A conceptualization of ecosystem-based adaptation (Mensah et al. 2012: 4). This figure shows how EbA is linked to ecosystems, ecosystem services, human beings and climate change.

EbA projects can be implemented in various forms such as sustainable water management projects, “[...] where river basins, aquifers, flood plains, and their associated vegetation are managed to provide water storage and flood regulation services” (Colls et al. 2009: 1); grass- and rangeland management as a measure to reduce vulnerability to flooding and droughts; or the diversification of agriculture to ensure the constant supply of food under changing climatic conditions (ibid.). An example of an applied EbA framework is the *Global Mountain EbA Programme* (Nyman et al. 2015). As part of this initiative, practitioners from the United Nations and the International Union for Conservation of Nature took EbA measures in cooperation with local populations along the Sipi River in Uganda (Op. cit.: 44). Due to climate-related declining water levels and poor catchment management, this region had experienced economic and social degradation, particularly in relation to food supply and health conditions (ibid.). As a response to the problem, the stakeholders involved established a gravity flow scheme for 22 villages, feeding into water storage tanks which today constitute safe and stable sources of water (ibid.). This water is now inter alia being used for irrigated farming enhancing agricultural yields (ibid.). Furthermore, the organizational staff introduced more drought-resilient crops in the area and conducted work on soil conservation and agro-forestry, which

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reduced the risk of landslides (ibid.). Finally, indigenous tree and grass species could be re-established, restoring the catchment and improving “[...] the resilience of the overall system to climate change” (ibid.).

As becomes clear from the above example, in EbA, one does not perceive ecosystems as providers of fixed goods, but as generating many ecosystem services within and across *different entities* of the system that are closely linked to each other (Reid & Alam 2014: 5): The water of the Sipi River does not only provide people with drinking water, but also helps them produce food for themselves and increase their economic activities. Furthermore, it allows them to plant tree and grass species which in turn again are indispensable for the integrity of the river. The river can and will only provide its services (such as clear drinking water) long-term when the species surrounding it provide theirs (such as trees and grass reducing the risk of erosion), and when human beings live with and within these services in a sustainable and mutually giving manner. Hence, due to the *integrated* understanding of what makes an ecosystem and what needs to be worked with (Sierra-Correa & Cantera Kintz 2015: 386), it would not be sufficient in the Ugandan EbA-case to only focus on the river and claim this to be the entire ecosystem.

But despite EbA acknowledging the existence of social-ecological systems¹, the approach always entails a very strong focus on the *human need* for the ecosystem services that surround them (Colls et al. 2009: 1): Human beings (particularly in developing country contexts) are perceived as hardly able to adapt to climate change once their environments have been degraded (Duraiappah et al. 2005: 1). Many EbA-professionals furthermore see environmental ecosystem services as providing not only for the fulfillment of basic human needs, but as actually being able to shape our well-being (see for instance Mant et al. 2016; Naumann et al. 2013). As such, the *ecological* element in ecosystem services and ecosystem-based adaptation is irreplaceable. The Millennium Ecosystem Assessment visualizes this stronger one-way than mutually functioning link between environmental ecosystem services and human well-being (Duraiappah et al. 2005: vi).

¹ The term *social-ecological system* refers to the “[...] relationships and linkages between people and their environment” (Ensor 2011: 33).

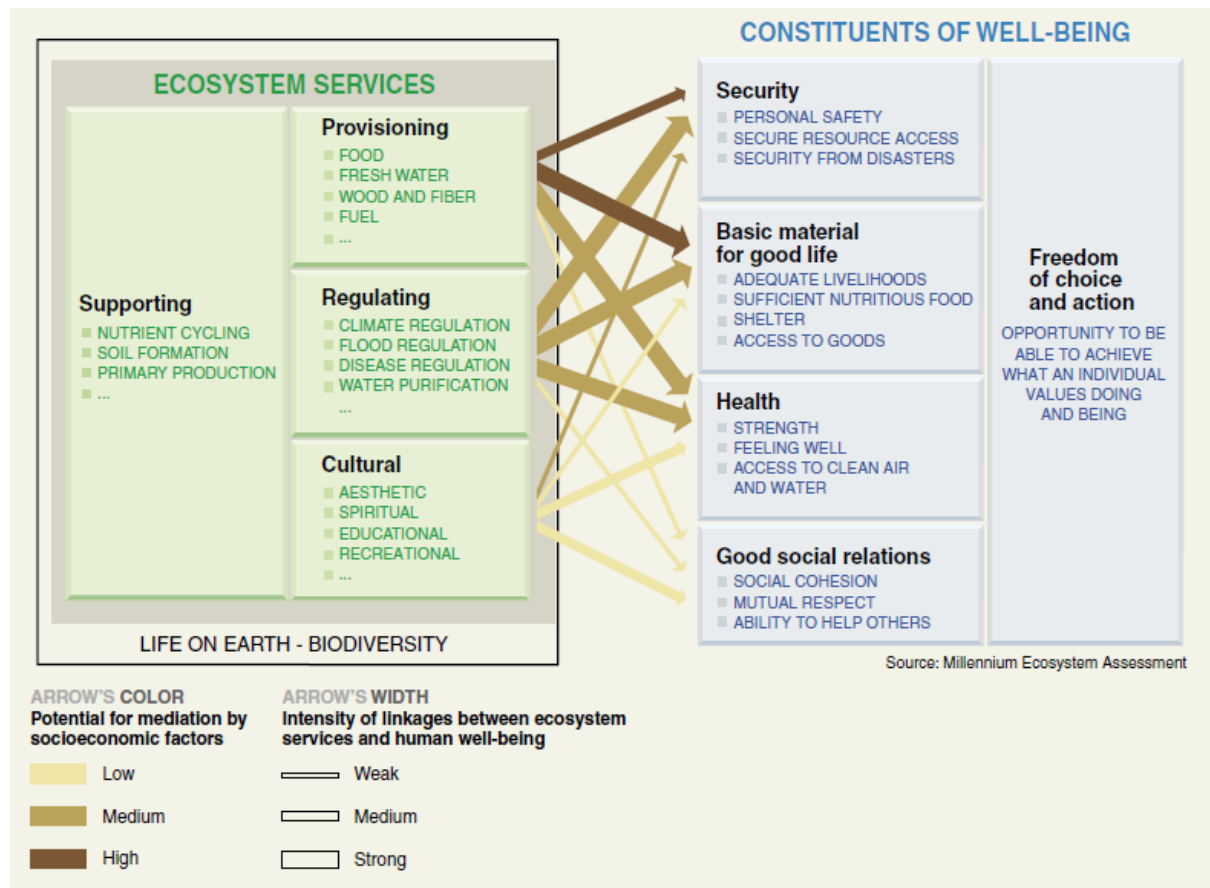


Figure 2: Ecosystem Services as Constituents of Well-Being. Ecosystems benefit human beings by providing provisioning services, regulating services, cultural services and supporting services, which then influence human well-being on multiple levels (Duraiappah et al. 2005: vf.).

As becomes clear from the above, EbA places a lot of importance on the role that ecosystem services play for adaptation and human well-being. The term *ecosystem services* is closely linked to debates on how to assess the value inherent in precisely these services (Gómez-Baggethun et al. 2010: 1214): The interest in monetizing biodiversity grows until today, with more and more research being conducted on the “[...] design of Market Based Instruments to create economic incentives for conservation” (ibid.). Such developments are not observed without criticism. Barbara Unmüßig (2014: 3) for instance argues that giving aspects of nature a monetized value changes how one perceives them, shifting their meaning towards that of being nothing more but commodities. Thereby, Richard Conniff (2012) warns, environmental assets get integrated into the global capitalist system. Richard B. Norgaard denotes in this context that the focus on monetization distracts people from noticing the “[...] substantial institutional changes [needed] to significantly reduce human pressure on ecosystems” (2010: 1220). As *raising awareness* in regards to these changes was however what the

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conceptualization of ecosystems originally set out to do (Op. cit.: 1220-1223), it had lost one of its most central meanings (Op. cit.: 1219).

Community-Based Adaptation

Community-based adaptation evolved “[...] out of a recognition that adaptation finance channeled through national governments is not likely to reach the lowest income and most vulnerable people” (Dodman & Mitlin 2013: 641), who are also in need of adapting their practices in the face of a changing climate (ibid.). As such, CbA is related to social perspectives on adaptation and ideas of international development (Forsyth 2013), and also depicts a contrasting approach to the high-cost and high-technology adaptation methods primarily applied in Western nations (Dodman & Mitlin 2013: 641). CbA needs to be understood in line with participatory development approaches (Op. cit.: 643). These arose in the end of the 1980s as a reaction to the then identified ‘failure of 40 years of development work’, whose main causes were named to be top-down, context-overlooking interventions (ibid.).

CbA can be defined as an “[...] approach to adaptation that allows local people to determine the objectives and means of adaptation practices. It is based upon a participatory assessment of the risks posed by climate change, and emphasizes the development needs of vulnerable communities” (Forsyth 2013: 439). CbA is thus also strongly shaped by Human Rights-Based Approaches to development (Girod et al. 2012: 7) entering the stage in the early 2000s (HRBA 2016). CbA constitutes a bottom-up approach often deployed by non-governmental organizations (Reid & Huq 2014: 291), and is mainly applied in developing countries (Forsyth 2013: 440). It functions on the basic understanding that the target group holds capacities such as experience, knowledge and networks, which are needed to conduct vulnerability-reducing and resilience-building activities (ibid.). CbA practitioners hence perceive local populations as active stakeholders who can and need to take on key roles in the adaptation efforts targeted at them, rather than as passive receivers of external interventions (Castro et al. 2012: 3). Here, focus regularly is on local rather than scientific capacities, as both staff and target group involved often lack scientific expertise at the same time as the highly downscaled and context-specific data needed to create suitable solutions is not available (Heltberg et al. 2012: 158). However, some scholars demand that scientific knowledge, for instance in relation to climate change predictions, ought to be made available, shared and understood among all involved in

order to make CbA projects future-oriented and long-lasting (Ensor 2011: 44ff.). CbA activities aim to not only focus on climate change-related issues, but to include other social, economic and political origins of poverty and vulnerability, as the approach recognizes that a pure focus on climate change would most probably misrepresent local priorities (Forsyth 2013: 440). However, the implementation of this premise remains challenging (see Dodman & Mitlin 2013: 645f.; Heltberg et al. 2012) due to a variety of factors such as adaptation-focused donor requirements (Dodman & Mitlin 2013: 646).

CbA is known to make use of participatory research tools such as group discussions, participatory risk assessment (Forsyth 2013: 440f.) and participatory Monitoring and Evaluation processes (Faulkner et al. 2007). Power sharing, common decision-making as well as trial- and review-cycles of project approaches shall lead to a shift in mentality among the group involved – “[...] from charity to being claimants with legitimate entitlements” (Ensor 2011: 53). In more detail, CbA projects can contain the collective establishment of management tools or the identification of skill sets including the skills available and the skills needed to sustainably run an adaptation project (Magee 2013). An example of a community-based adaptation project is Practical Action’s *Community-based adaptation in vulnerable coastal areas of Bangladesh*. As part of this initiative, the local stakeholders produced a climate vulnerability map, and Practical Action established climate resilient group shelters (Practical Action 2016). Furthermore, the organization introduced solar home systems and biogas plants, and provided training on cyclone signal warning (ibid.).

Despite CbA’s aspirations to function socially inclusive, achieving successful collaboration often remains challenging (Castro et al. 2012: 5). This is due to the fact that a *community* hardly ever consists of a homogenous group of people, and hence, actual and equal inclusion of local stakeholders is hard to achieve. In addition to this issue, defining a group as a homogenous entity can easily lead to what Terry Cannon (2014: 108) terms *elite capture*. Hereby, Cannon is referring to the phenomenon that the people who already are in power positions within a group eventually are the ones benefitting the most from projects which originally aimed to include the marginalized (ibid.). Another critique of *community* comes from Zygmunt Bauman (2001: 1f.), who describes the term as a warm, cozy and safe place where one can count on the other and feels at home. However, the scholar goes on by depicting

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community as a utopia, a place not available to humanity but one we all strive to become part of (Op. cit.: 2), “[...] so we feverishly seek the roads that may bring us there” (Op. cit.: 3). If this is the case, however, applying the concept in development and adaptation might constitute a dangerous ideological chase which cannot lead to satisfying outcomes for anyone involved.

1.3 Blurry Boundaries

As becomes clear from the above, the literature mainly treats EbA and CbA as two different approaches within the field of adaptation: Their *emphases* are perceived as distinct, with CbA aiming at “[...] empowering local communities to reduce their vulnerabilities, and [EbA at] harnessing the management of ecosystems as a means to provide goods and services in the face of climate change” (Giroto et al. 2012: 1; also Rahman 2014: 2). Furthermore, due to the strategic utilization and conservation of biodiversity and ecosystem services (for instance Colls et al. 2009; Giroto et al. 2012), EbA has a stronger connotation of being a (natural) scientific approach. CbA, on the other hand, is often described as functioning without a broad scientific knowledge base (Ensor 2011; Heltberg et al. 2012). As such, academic and often also grey literature discuss the approaches separately (Giroto et al. 2012: 12), with one being more socially and locally, and the other more environmentally rooted.

When looking deeper into project conceptualizations and case examples of the approaches, however, these lines get increasingly blurred: Clearly demarcating and distinguishing definitions of the two approaches remain rare (ibid.), and project descriptions on EbA and CbA projects often entail both wordings and activities that lie surprisingly close to what one expects to read in a project defined as the respective other. In the UN’s *Community Based Adaptation to Climate Change Through Coastal Afforestation in Bangladesh* Project, for instance, it is argued that the *Forest, Fish and Fruit*-model, as part of which the project staff established fish nursery ponds and introduced more productive and protective plants, has generated a ‘green shield’ for vulnerable local populations (UNDP 2011: 2). The project documents furthermore outline that the model has been helpful in managing and protecting the people’s “[...] natural capital in a changing climate” (ibid.). On the other hand, a case example from the Global Mountain EbA Programme describes how *Community-based Risk Screening Tools* were utilized (Nyman et al. 2015: 15). Hence, lines of definition appear particularly unclear for both approaches when these are set in relation to each other. In

practical terms, this blurriness generates a variety of paradoxes: If EbA and CbA should actually be treated as two separate approaches, then clear distinguishing lines are lacking. This can be problematic, as such definitions are needed to define success criteria, and to assess if and how the approaches can be improved. Furthermore, it might be more difficult to receive funding if one cannot clearly define whether or not the approach utilized falls into a donor's agenda. However, if EbA and CbA should actually be treated as one, the question arises why they exist as separate approaches in the literature, and whether this problem is specifically related to this thesis' object of study, or constitutes a more general challenge in adaptation-development. These and other critical themes inspired the choice of this thesis' research question. More comparisons between adaptation measures are demanded in the literature (Mensah et al. 2012; Reid & Alam 2014), and critical assessments of synergies and claimed differences between EbA and CbA remain highly limited (Girod et al. 2012: 12). Therefore, an investigation of the relationship between EbA and CbA as perceived by practitioners, and as seen against the corresponding scholarly background, was chosen as this thesis' starting point.

1.4 The Broader Debate – Adaptation and Development

As part of this thesis' research process, it became clear that discussions on how EbA and CbA relate to each other are strongly shaped by broader debates on the use of buzzwords and the link between adaptation and development. Even though both approaches clearly fall into the realm of adaptation, CbA is often seen as closely linked to international development (for instance Forsyth 2013) and the dividing line between adaptation and development in conceptualization and practice is undeniably thin (Huq & Reid 2004: 15; Ireland 2011: 225). Such facts, in combination with the findings from this thesis' research process, make the adaptation-development debate a strongly-shaping element in regards to this thesis' research question. Its grounding in the literature shall therefore be introduced at this point.

Critical Voices

Ever since climate change adaptation started to be used on a mainstream level in the first years of the new millennium (Dodman & Mitlin 2013: 641), scholars have controversially debated the connection between adaptation and development in theory and practice (Beckman et al. 2013: 2). Some see major differences between the two paradigms in their respective linkages to the concept of climate change: Whilst adaptation is usually understood

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as a 'response to the impacts of climate change' (ibid.), development is more closely connected to dealing with the underlying issues that create vulnerabilities (to climate change and other factors) (ibid.). Hence, the question of intentionality (whether one aims to address climate change, or vulnerability on a more general level) might generate a dividing line between the two concepts (Huq & Reid 2004: 19). At least, it might demand that some new dimensions are added to development work if we are to effectively and beneficially include adaptation (Adger et al. 2003: 191).

Another important differentiation scholars often make between development and adaptation is related to divergences in the inherent strategic, temporal and spatial dimensions of the two paradigms: Taking account of climate change entails not only keeping track of current climatic impacts, but also considering expected long-term outcomes on global scales (Agrawala 2004: 51). Adaptation measures are seen to include such a long-term dimension regularly (ibid.). Many development projects, on the other hand, are perceived as rather putting emphasis on immediate and locally/regionally bound vulnerability-reducing activities such as public health, poverty or food security (ibid.). At the same time, academia has often criticized classical adaptation thinking, as opposed to development logics, for being too much focused on continuity and adjustment, and for lacking innovative, change-oriented perspectives (Zimmerer 1994: 112). In recent years, however, scholars such as Mark Pelling (2011) have started to discuss adaptation in transformative terms, for instance as a form of socio-political transition (ibid.). Hence, a shift away from classical understandings of adaptation as continuity seems to take place. As part of this development, the literature more and more demands that the current exclusion of migration as a form of adaptation urgently needed to be removed, since climate change impacts are anticipated to become "[...] so large as to render incremental adjustments insufficient" (Heltberg et al. 2012: 151). Migration constitutes thus a change-oriented, yet indisputably needed and future-conform response to climate change.

Finally, one could draw a dividing line between adaptation and development in terms of the theories utilized in the two paradigms: Adaptation work is strongly shaped by systems thinking approaches (Pelling 2011: 5), a theoretical perspective which is still rather uncommon in development literature and cooperation (Morgan 2005: 2). Systems thinking constitutes a specific way of understanding the world in systems, in which the most important entity is not

the individual elements of a system, but the connections and interactions between these. A system can thus not be understood by only looking at one of its parts, but needs to be comprehended in its entirety (Op. cit.: 7). This includes that one has to take the dynamics of a system's elements into account (ibid.). The proclaimed strength of systems thinking is that it can make the complexity of to-be-studied entities on this planet more feasible and understandable, which in turn generates more effective and suitable solutions (Op. cit.: 10). It is particularly due to this reason that the complex issue of climate change is often approached through this lens (Metz 2012). An example of this is EbA, which already in its terminology positions itself within the realm of systems thinking. Often, however, interactions between elements of a system happen so slowly or rapidly that they cannot be systematized, or at a spot which cannot be observed due to the sheer size and complexity of the system (Mella 2012: 29ff.). This type of *inherent complexity* poses a major challenge to systems thinking approaches, as they can mainly detect connections which appear to be complex on the surface, but exist within a rather simple order below the surface (*apparent complexity*) (Create Advantage 2016).

Systems thinking is not simply a latecomer in development work – rather, the approach could not establish itself, since development experts and practitioners “[...] remain unconvinced about its operational use” for the field of development (Morgan 2005: 28). Merging adaptation and development theory thus seems to remain rather unconventional.

Adaptation and Development as Buzzwords

Due to all the above described differences, but simultaneously an experienced merging of adaptation and development (Agrawala 2004: 50), scholars and practitioners from both sides sometimes fear that their respective priorities might get distorted and funding spent on the ‘wrong purpose’ (Adger et al. 2003: 191; Huq & Reid 2004). They critically argue that the tendency to mainstream adaptation into development and vice versa was related to the expectation of bigger amounts of funding being available within the respective other field (see for instance Ireland 2012: 106). As such, both adaptation and development are sometimes seen as being (mis)used as buzzwords (Koh 2016: xii; Rist 2007). The term *buzzword* here refers to concepts that are applied inflationary in a specific context, and which “[...] combine general agreement on the abstract notion that they represent with endless disagreement about what they might mean in practice” (Cornwall 2007: 472). Buzzwords hence sound

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intellectual and ‘warmly convincing’ (ibid.), and generate an expectation of what they are supposed to stand for without actually entailing clear definitions (Rist 2007: 486). This can result in them generating a distorted view on reality (Op. cit.). When a development organization makes use of adaptation terminology or vice versa, “[...] even when they feel their work is unrelated” (Ireland 2012: 106), the concern therefore sometimes arises that pure absorption rather than effective integration of the respective other is taking place (Agrawala 2004: 51). How such a critique relates to the findings of this research shall be elaborated upon in the analytical discussion.

A Beneficial Coalition

Despite these differences sometimes perceived between adaptation and development, and the worries connected to their merging, there exists a relatively clear consensus in the academic world that adaptation and development need to be thought and implemented as one rather than as two separate frameworks (Adger et al. 2003: 191). Many scholars argue that “[...] the effect of separating adaptation from development may actually be counterproductive to achieving adaptation objectives, if the development foundation is weak” (Beckman et al. 2013: 2). This is mainly due to the fact that social, economic and institutional vulnerability-reduction as typical for development work has a positive effect on people’s resilience and thus, on their ability to adapt to changing climatic conditions (Acosta-Michlik et al. 2008: 539; Ireland 2011: 227). Successful adaptation is thus always also development, and in many cases also vice versa. As such, adaptation and development are interlinked on multiple levels (Huq & Reid 2004). This, however, does not mean that no consideration needs to be put into adaptation-elements in development projects or the other way around. It rather means that it should come as a natural effort to make one a central entity of the other (Adger et al. 2003: 193; Agrawala 2004: 52): Development work, for instance, needs to make sure that it addresses the long-term effects climate change is going to have more actively than just through immediate vulnerability-reducing measures (Agrawala 2004: 52). Yet, as vulnerability reduction and climate change adaptation are so interlinked, adding this long-term perspective is a logical and beneficial next step for both development and adaptation, rather than a radical change of existing work patterns. Due to this natural and useful connection between adaptation and development, scholars are demanding more and more strongly that the

outdated dichotomy between adaptation and development needs to be overcome (for instance Huq & Reid 2004: 21).

1.5 Nature versus Culture – The Theoretical Debate

When discussing how EbA and CbA relate to each other, one quickly reaches a point where the debates appear to be less about the approaches in themselves, but more about the ideological standpoints they are coming from and striving towards: As described further above, the literature depicts EbA as an ecosystem management-oriented approach, and CbA as stemming from the field of international development and having focus on ‘community’. From this, one can deduce that the former is perceived as more environmentally, and the latter more socially oriented. Nature is thus seen as a key component of EbA, whilst society is described as a central element of CbA. The two approaches, and hence nature and society, are discussed in separate terms in the literature, yet getting blurred when taking a closer look at project conceptualizations and case examples. As such, the paradox discussed in this thesis is closely connected to the long existing, yet still fiercely led academic debate about the link between nature and culture/society².

In modern Western practices and our creation of knowledge, nature and culture have been established as being dichotomous to each other on a multiplicity of levels: They are studied as different disciplines, and nature has not been a central theme of major historical, political or ethical discourses for a long time (Jones 2009b: 309). Furthermore, granting nature a degree of agency does not sit well with Western perceptions of what our environments are or can (ibid.). Rather than speaking of nature-culture, our Western understanding of the world lets us refer to nature *and* culture (ibid.). This separation was inaugurated the latest during the Age of Enlightenment, where the division of sciences as we know it today was shaped to a critical degree (Bristow 2011).

The division of nature and culture, however, appears to be dwindling (Fall 2010: 1995): Many scholars have started to argue that “[n]ature and society have always been much more entangled than our histories have envisaged” (Jones 2009b: 311), and that the artificial

² As the paradigm is both referred to as nature-culture and nature-society (Jones 2009b; Fall 2010), the terms *society* and *culture* shall be used interchangeably.

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separation created in modern societies has never been picked up in other parts of the world (ibid.). Along these lines, more and more theoretical frameworks that perceive of nature and culture as deeply intertwined rather than as separate entities have evolved. Such perspectives are of particular relevance for the thesis at hand.

The first theorist whose work this thesis makes use of is William Cronon (1996). The scholar elaborates on how humanity has constructed an image of wilderness that eventually forces us – against our actual way of being – to remain separate from nature. Furthermore, the theoretical field of *new ecology* is of relevance for the thesis at hand: Here, ecological systems are understood as being open and undergoing constant changes, which entails that humans naturally enter into these systems and into various kinds of human and non-human interactions (Jones 2009b: 316). Moreover, new ecology-scholars argue that nature management is best taken care of on highly localized scales due to the system's ever-changing character (Norton 1996; Zimmerer 1994). Beyond new ecology, *dwelling* perspectives shall be utilized in this thesis' analytical discussion. *Dwelling* refers to an understanding of *being in the world* that is highly process-based, meaning that everyone's and everything's shaping of and being shaped by the world depends entirely on our process of relational *being in it* (Cloe & Jones 2001; Ingold 2002). Finally, Signe Howell's considerations (2013), in which she describes how nature and society are understood as separate entities in the UN REDD+ program, find application in this research. Howell elaborates on how the distinction between nature and society ultimately eradicates REDD+' possibilities for success.

The above elaborations show that understanding and working with relationships of nature and society remains highly ambiguous until today. Therefore, it is seen as greatly important in this thesis to continuously engage in discussions on this issue. This is needed in order to get an as thorough as possible understanding of the relationship between nature and culture, and thus, to be able to move the academic debate forward. Assessing the relationship between EbA and CbA offers precisely this opportunity. It is so essential to untangle the academic dilemma connected to nature and culture, since the way we understand the two entities' relationship has a strong effect on how we act upon our environments (Jones 2009b: 309) – an issue which, in the face of climate change, could not be more present and pressing.

2. Methodological Considerations

In order to gather the information needed for answering the research question in focus, I conducted a two-week ethnographic fieldwork and multiple interviews. These methods shall be presented and discussed as part of this chapter. In more detail, the core methodological tools made use of in this thesis are: 1. observations and fieldnotes taken during field visits and a conference on community-based adaptation in Dhaka, Bangladesh (CBA10); 2. informal talks and semi-structured life-world interviews conducted during and after the visit to Bangladesh with experts and practitioners from the field of adaptation and development. The methodological considerations will furthermore entail elaborations on the possibilities, challenges and learning experiences of the data gathering process.

2.1 Ethnography

The methods utilized in this thesis fall into the realm of ethnography (Till 2009: 627). In general terms, ethnography constitutes “[...] a methodological and practice-based approach to understanding and representing how people – together with other people, nonhuman entities, objects, institutions, and environments – create, experience, and understand their worlds” (Op. cit.: 626). In the thesis at hand, I carried out a special form of ethnography, since I conducted a large part of my fieldwork during a professional conference on adaptation rather than in an everyday life context. As such, I focused on the practitioner- and expert perspective on EbA and CbA, rather than on immediate local understandings of the concepts.

Conducting Fieldwork at a Conference

In my methodological proceedings, I in many ways followed Martin Skrydstrup’s (2009) fashion of conducting ethnographic fieldwork at a conference, who did so during an event leading up to the COP15-meeting in Copenhagen. Skrydstrup’s elaborations show a variety of similarities to the work performed and the goals striven for in this thesis. As such, his descriptions constituted a useful orientation for the methodological steps taken here. In similar vein as Martin Skrydstrup, I made use of a conference setting to meet practitioners and experts on climate change adaptation and development, and to gather some of their understandings and arguments on how EbA and CbA relate to each other (Op. cit.: 338) . In the analytical discussion, I then contextualized the major points found with scholarly elaborations on the topic made by both the same experts (Op. cit.: 340) and other scholars.

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Overall impressions are utilized just as much as outcomes of individual sessions, informal talks and interviews (Op. cit.: 341; 347).

Skrydstrup sets his conference experiences in relation to Bruno Latour's theoretical elaborations on scientific reasoning and practical sense-making (Op. cit.: 343-345). As part of this, he does not only bridge and explain similarities and differences between theory and practice, but also goes into depth with how the social sciences relate to natural science, hence indirectly discussing the link between nature and society in knowledge-generation (ibid.). In similar manner, this thesis applies certain scholarly perspectives from the nature-culture paradigm to explain the findings from the data gathering process, to assess theory and practice in the EbA/CbA nexus and to discuss how dichotomies such as development and adaptation, academia and practice and nature and society could and possibly should be engaged with. The answering of this thesis' research question hence takes place on multiple levels: It moves from the narrow and specific to broader conceptual and even ideological debates on dichotomies that are related to EbA and CbA. Skrydstrup (2009: 348f.) proceeds similarly, moving from a rather narrow debate on the statements of individual persons, via conceptual discussions on social resilience to overall connections between science and politics. He always sets Latour's explanations in relation to these layers of understanding in. Theory hence becomes an explanatory tool in the process of knowledge generation. It is used in similar fashion in this thesis.

Participation in CBA10 – Observation and Fieldnotes

As part of the visit to Bangladesh, I conducted participant observation during the 10th International Conference on Community-Based Adaptation to Climate Change (CBA10) in Dhaka. Participant observation refers to the process during which “[...] the researcher attempts to learn about a particular socio-cultural space and those who inhabit it by taking part and continually reflecting on what is happening” (Walsh 2009: 77). The work I conducted as part of this process shall be elaborated upon below.

CBA10 took place from the 21st to the 28th of April, 2016. Its theme was *Enhancing urban community resilience*, thus focusing on urban community-based initiatives (IIED 2016b). The conference was organized by the International Institute for Environment and Development

(IIED), the Bangladesh Centre for Advanced Studies (BCAS), the International Centre for Climate Change and Development (ICCCAD) and the Independent University, Bangladesh (IUB) (ibid.). The goal of the conference was

[...] to share and consolidate the latest developments in community-based adaptation practices, policy and theory across sectors globally. It aims to strengthen the existing network of practitioners, policymakers, planners and donors working on all levels of community-based adaptation, and enhance the capacity of practitioners, governments and donors to help improve the livelihoods of those most vulnerable to climate change (ibid.).

Hence, even though the conference had a thematic focus on urban adaptation, practitioners and experts from a variety of backgrounds participated in it, and an array of topics was debated. Multiple key note speakers discussed issues related to CbA and EbA in plenary and parallel sessions (see Annex 3 for conference program). Furthermore, field visits to different CbA-sites in the broader Dhaka area took place in the first days of the conference, and posters and short films were presented during the course of the following days (IIED 2016b). As a participant and volunteer at CBA10, it was possible for me to conduct *active participation*, meaning that I extensively engaged in the conference, observed and took notes throughout its course (DeWalt & DeWalt 2010).

During the conference, I noted down the information I gathered in jottings, functioning as “[...] the trigger you need to recall a lot of details that you don’t have time to write down while you’re observing events or listening to an informant” (Bernard 2006: 389). These were then turned into descriptive and analytic notes which I could utilize for writing this thesis at a later point (Op. cit.: 397f.). In order to keep track of goals and accomplishments during the time in Bangladesh, I maintained a rough *log*, meaning a “[...] running account of how you plan to spend your time, how you actually spend your time, and how much money you spent” (Op. cit.: 392).

The documentation produced as part of this ethnographic work need to be understood as personal accounts, meaning that they are social products which I generated in a specific context (Hammersley & Atkinson 2007: 127). My notes were for instance shaped by the people I met and the conversations I had during a day, which again were influenced by these

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people's practical, academic, cultural and organizational backgrounds. Furthermore, what I did during the day had an impact on the notes I took: Looking at them in retrospect, it became quite obvious that my jottings related to different observations during the days where I went on field trips than on the actual conference days, where I mainly sat in on more theoretical sessions and debates related to the topic. Hence, just as any type of personal documentation coming out of ethnographic research (ibid.), the fieldnotes I took during my time in Bangladesh cannot be understood as objective accounts. They can be made available upon request.

Preparing for the Field Trip

The trip to Bangladesh was prepared over weeks before the actual visit took place. Besides all the practicalities which needed to be arranged for, I was well aware of the fact that “[...] white, European young women would be met with a pre-understanding by the Bangladeshis as well” (Nielsen & Dallerup 2010: 16). Therefore, I arranged meetings with friends and acquaintances who had been to Bangladesh before to prepare for social norms, clothing standards and challenges I would experience. Furthermore, I studied information about Bangladesh as a country, its history, geography and role within the field of international development. In addition to this rather formal information, I read guides provided by the conference organizers, the Danish Embassy in Bangladesh and available on the internet.

Challenges and Possibilities

The Data and its Accessibility

In general terms, getting access to the information and contact persons needed via email or phone was highly challenging throughout the first weeks of the data gathering process. Many of my messages remained unanswered, and it soon became clear that the lack of personal connections constituted a large hindrance for getting in touch with the right people in the busy world of adaptation and development work. Finally decisive in this regard was the trip to Bangladesh: After I could only arrange for one interview before the visit, and could plan another one independently of the field trip, the contacts I made in Bangladesh were extremely helpful and relevant for this thesis' data gathering process. Furthermore, I got access to a variety of useful written material and case documents, which were invaluable for gaining a better understanding of my object of study. Finally, the visit to Bangladesh was a unique professional networking opportunity in relation to my future work field. In sum, personal

contacts were key for this thesis in regards to data accessibility, and my visit to Bangladesh constituted the gatekeeper element needed in order to establish these highly enriching contacts.

Experiences from the Ethnographic Work

Also the participant observation conducted for this thesis did not function without challenges, and provided learning experiences for future research. One of such challenges was related to the issue of collecting data in a foreign country to afterwards return to a Western country and produce a study based on the information gathered. By doing so, some scholars argue, colonial connotations are reproduced (Till 2009: 627). This topic was particularly present during the field visits, where we as a group of foreign professionals got the opportunity to gain insight into locally based adaptation projects in Dhaka's slums. As part of this, we inevitably moved extremely close to the inhabitants' private spheres, for instance by being allowed to look into their homes. This highly enriching, yet uncomfortable experience was balanced by the welcoming and curious Bangladeshis, who did not hold back entering our personal spheres in return by following us around and taking pictures of us. It was a great learning experience to get a sense of the giving and taking of personal space that is and should be coming to pass as part of doing research in a foreign country.

Another challenge during participant observation was related to my positionality, meaning the "[...] own and personal location in the field, and in a place, in relation both to self and to others" (Bosco & Moreno 2009: 120), and the over-, rather than under-reflexivity on it (Walsh 2009: 80). Throughout the entire fieldwork period, I was highly aware of the fact that I was 'only' a student among professionals who had been working within my field of research for many years. This clearly affected my appearance during the conference and my approach towards other participants. I however learned that people were very interested and eager to help as soon as I elaborated on the research I was doing. Furthermore, presenting them my work would not only lead to people providing me with information, but also to them recommending other people I should get in touch with. Thus, I could create an extremely helpful snowball effect by exposing my work. Furthermore, doing so was central for how I established rapport, meaning a mutual understanding and support for as well as acceptance of the work of the other (DeWalt et al. 1998: 268): It was a natural part of the conference to

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introduce oneself to every other participant one met, including a short description of what one was doing. Thereby, I built many personal contacts, received recommendations as to who to get in touch with, and could guarantee full disclosure in regards to my work (Bernard 2006: 390). In cases where I conducted interviews during and after the conference, I provided further information either personally, via e-mail or on the phone.

As part of taking fieldnotes, I did not experience any major challenges. This is partly due to the fact that the amount of fieldnotes remained manageable, as the fieldwork period was limited to two weeks. Furthermore, my background in journalism helped me to keep my notes thorough, yet organized (Op. cit.). Ethical conflicts in regards to taking notes publicly did not arise, either (DeWalt et al. 1998: 270ff.). This was because many conference participants were taking notes during both the field visits and the actual conference, and the early-on and fully established rapport allowed me to jot down observations almost the entire time. The biggest challenge I experienced in the context of taking fieldnotes related to what H. Russel Bernard describes in the following manner: “Let’s face it: After a hard day trekking all over [town] [the village] [the jungle] [the desert] interviewing people, hanging out, and recording behavior, it’s hard to sit down and write up field notes. Sometimes, it’s downright intimidating” (2006: 395). My solution to this problem was as plain as it was strenuous – in order to account for the day as fully as possible, there was no way around writing up my notes as soon as I could (ibid.).

2.2 Semi-Structured Life World Interviews

As interviews constitute a unique possibility to gain in-depth understandings of varying perspectives in relation to a specific topic (Willis 2006: 146), I furthermore conducted ten interviews with a total of twelve experts and practitioners from the field of adaptation and development. All interview partners were highly qualified, coming from well-known development, environmental and research institutions such as the United Nations or the Gesellschaft für Internationale Zusammenarbeit, and having been working within the field of adaptation and development – many of them in Asia – for a long time. All transcribed interviews can be made available upon request.

Following Michael Meuser and Ulrike Nagel (2009: 31; 33), an open, *semi-structured* interview approach was taken on in this thesis. Semi-structured life world interviews constitute an

interview type which aims at “[...] obtaining descriptions of the life world of the interviewee in order to interpret the meaning of the described phenomena” (Kvale & Brinkmann 2009: 3). *Life world* here refers to central themes and their meanings as experienced by the interviewee (Op. cit.: 29). In the context of this thesis, these themes are related to the interviewees’ knowledge about and experience with EbA and CbA. In semi-structured life world interviews, the interviewer takes on what Steinar Kvale and Svend Brinkmann term a *qualitative stance*, meaning that “[...] processes and phenomena of the world are [...] understood before explained, and seen as concrete qualities before abstract quantities” (Op. cit.: 12). Hence, rather than seeing the interviews conducted as merely supplementing pre-existing theoretical claims, I perceived them as creating knowledge in themselves, which is going to be further explained with the help of theory.

The knowledge produced during qualitative interviews is always socially constructed amid the interaction between interviewer and interviewee (Op. cit.: 54). This fact logically entails that the knowledge stemming from interviews is not only generated by the interviewee. Just as much, it is based on the pre-understandings of the interviewer, who is never “[...] an outsider in any absolute sense” (Binns 2006: 14). The interviews conducted for this thesis for instance were clearly shaped by me having more of an academic than a practical background. As such, I first needed to understand and then integrate the knowledge I gained in regards to practical perceptions on how EbA and CbA relate to each other, and on which greater debates this relationship entails, into my interviewing. Despite these efforts, the knowledge produced from the interviews still needs to be interpreted in line with this rather academic standing of mine. In this context, it is furthermore worth noting that I held two of my interviews in German, and translated them to allow for the utilization of quotes. These translations constitute a mediated representation of what has been said rather than a neutral account of the latter (Buur 1999: 59-63). I for instance excluded hawing or repetitions, in cases where these were not used to emphasize a certain point. Even though trying to stay as close to the original version as possible, I thereby clearly influenced a statement in accordance with the impression it made on me.

The Storyteller

In semi-structured interviews, the interviewee constitutes the central storyteller (Barbour & Schostak 2011: 64). In order to allow for my interviewees' stories to evolve, I therefore aimed for a conversational level of communication during the interviews (ibid.). Before I started, I prepared an interview guide (see Annex 1) in order to maintain an overview over the investigation, and to keep its endpoint in sight (Kvale & Brinkmann 2009: 110f.). Nevertheless, I always tried to remain reflective to the interview situation, and allowed for my interviewees to "[...] bring up their own ideas and thoughts" (Willis 2006: 145). I moved interview questions around depending on the themes mentioned by the interviewees, and continuously added new topics as well as adjusted old ones based on the knowledge gained during previous conversations (ibid.). The possibly dichotomous relationship between adaptation and development, for instance, only crystallized as an important theme related to the EbA/CbA debate after I had conducted the first interviews. Thereby, I managed to maintain what Kvale terms *qualified naïveté*, meaning "[...] an openness for new and unexpected phenomena instead of [...] ready-made categories and interpretation schemes" (2007: 12).

Despite these efforts, a certain power asymmetry is inevitable when conducting interviews. An interview always constitutes an instrumental dialogue (Kvale & Brinkmann 2009: 33), in which the researcher has the monopoly of interpretation over the oral word (Op. cit.: 34). As such, she or he needs to be prepared for the interviewee to counter this imbalance by withholding information or questioning the researcher (ibid.). In the interviews carried out for the thesis at hand, all interview partners remained attentive and receptive to the questions asked, and appeared to reply openly. However, the gap between academia and practice as anticipated by some of the interviewees at times made it challenging for me to be taken seriously with the research I was doing. In these cases, I tried to get a better understanding of where the practitioners saw the mismatches between theory and practice stemming from, and how they thought that these gaps could possibly be dealt with.

Ethical Considerations

When conducting interviews, it is highly important to take ethical considerations into account (Op. cit.: 68). A core concept here is *informed consent*, which means that the interviewee needs to be informed about the purposes of the research and its main features of design (Op. cit.: 70). Furthermore, the interviewer should offer the interview partner to have his statements treated confidentially, and to get access to the interview transcriptions (Op. cit.: 71). As I took informed consent and the issue of confidentiality very seriously, all interview partners were offered to read through the transcribed interviews and to make suggestions as to how to adjust them or add content. The majority of the interviewees made use of this proposal. Furthermore, some interview partners remain anonymous throughout this thesis in accordance with their or their organizations' demands. If additional information on these interviewees is needed, it can be made available upon request. I have also chosen to anonymize certain statements, which I identified as potentially sensitive in content. This is done to avoid any negative consequences for my interviewees regarding reputation or donor relationships. All interview partners shall be introduced as part of the analytical discussion. A brief overview over them can be found at the end of the bibliography. Conference participants who made comments during sessions or whom I had informal conversations with shall not be referenced to in any explicit manner based on the principle of informed consent.

3. Nature-Culture – The Theory

3.1 State of the Art

In its analytical discussion, this thesis applies literature from the nature-culture paradigm. This is done, as the debate about the dichotomous relationship – or lack thereof – between EbA and CbA very well fits with the broader academic discussion on nature's and society's dichotomous separation. Hence, making use of theoretical considerations from nature-culture will help to generate better understandings of and explanations for this thesis' findings. The sub-chapter at hand sets the stage for more thorough theoretical elaborations by outlining the overall academic debate on nature-society relationships which has been going on for many decades.

Cartesian Dualism

Some scholars claim that the divide between nature and culture as known in modern Western societies was not first shaped during Enlightenment, but already became visible in René Descartes' writings: The philosopher described the human body and mind as existing in a dualistic system, known as the *Cartesian Dualism* (Baker & Morris 1996: 18). Mind, according to Descartes, can be equaled with consciousness (Op. cit.: 18). The latter needed to be understood as an object of *introspection* – only the individual person could understand her or his own state of mind, whilst it was comprehensible for outsiders only to a limited extent (Op. cit.: 18ff.). The body, on the other hand, was more of a public object, visible and understandable for everyone (Op. cit.: 20). Mind and body, so Descartes, are mutually causally related, meaning that physical processes can affect the mind, and mental mechanisms can bring the body to react in a certain manner (Op. cit.: 21). The Cartesian Dualism “[...] did not exactly split humans and nature apart, but it split mind, thought, and language apart from the nature of the human body and certainly from the rest of nature” (Jones 2009b: 310). Many scholars thus refer to it as an important milestone in the modern creation of the nature/culture dichotomy (Op. cit.: 311).

Everything is Nature

One way of leaving the divide between nature and culture behind is to define everything either as nature, or as culture. Positions making a point in favor of everything being nature emphasize “[...] the great extent to which human life and culture has emerged from, and exists

as little more than faint flickerings within processes of biochemical existence” (Op. cit.: 312). Often taking point of departure in Darwin’s evolutionary theories, these scholars not only refer to the evolution of human beings as such, but also argue that cultural habits and values are stemming from the natural and animal life surrounding us (ibid.). Out of such perceptions of nature and culture, forms of determinism can easily arise, questioning our ability to act and decide freely. Environmental determinists for example claim that humans are steered by their environments when it comes to taking action or making decisions (Hong 2010: 142). Jared Diamond describes in this context how geographical and environmental factors are responsible for some nations, and even entire continents, having better opportunities for development than others (Op. cit.: 158). This eventually created the world order and power structures we have today (ibid.).

Another perspective on ‘all is nature’ has been strongly shaped by ecologists and environmentalists. In order to make a case for environmental protection, this group described nature as an all-encompassing entity which humans are part of, but which they simultaneously are destroying (Fall 2010: 1996). The only possibility to protect nature was thus to remove human purposeful or unintentional intervention (ibid.). As ‘real nature’ mainly still exists in the Southern hemisphere, such protectionist perspectives have often led to the exclusion of local populations who used to inhabit a land and who lived in close synergies with nature (ibid.). Also, these standpoints rather reinforced than dissolved the nature/culture dualism, since “[n]ature, rather than being “everything,” ends up being considered truly “out there,” surviving in the (few) remaining “real wild” places free from human impacts” (ibid.). William Cronon elaborates further on this issue, and shall be brought up again at a later stage. Cronon and others arguing along his lines, however, drew heavily from social constructivism, which constitutes the background for another view on nature and society, positioning itself at the opposite end of the nature-culture continuum.

Everything is Culture

Proponents of the ‘all is culture’ perspective contend that our surroundings are too much shaped by the power and practice of our social constructions to still be called natural (Jones 2009b: 312). Nature, according to them, is shaped and eventually even created and destroyed by the social meaning, value and perception we attach to it (ibid.). A central figure in this

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discourse is Bill McKibben, who in his book 'The end of nature' argues that the human race, by interfering in and eventually altering the climatic conditions on earth, managed to end the existence of nature: "By changing the weather, we make every spot on earth man-made and artificial. We have deprived nature of its independence, and that is fatal to its meaning. Nature's independence *is* its meaning; without it there is nothing but us" (McKibben 1990: 54). The only rescue from our dilemma was to change our perception of the role and importance of humanity on earth. If it was possible to introduce the more humble idea that "[...] we might be no more important than anything else" (Op. cit.: 159), McKibben states, change towards sustainability through an independent nature might still be possible for future generations (Op. cit.: 199).

Underlying McKibben's 'End of nature' is the thought that nature and culture used to be separate realms, but that culture has taken over what once was natural (Jones 2009b: 313). Others, however, claim that nature is *always* constructed out of a multiplicity of social ideas which then become understood as 'the natural' (Op. cit.). Noel Castree and Bruce Braun (2006: 165), for instance, point out that there prevail multiple different forms of constructionist arguments on nature, which can be differentiated by the processes and products they describe. These arguments could for instance come about as *material constructionisms*, in which nature is understood as a physical space, or *discursive constructionisms* "[...] that look at ideas, representations and images of rural nature" (ibid.). Hence, the scholars claim that there exist "[...] a whole range of contested and contesting natures" (Jones 2009b: 313) rather than a single constructed one. These grew out of various paradigms which had evolved over time and partly overlapped each other (Castree & Braun 2006: 167f.).

Nature-Culture

Not every theorist from the nature-culture paradigm, however, would position her- or himself at the just described ends of the continuum. Many, and this is of particular importance for the thesis at hand, perceive of nature and society as intertwined. Some of these theoretical middle-grounds shall be outlined below, falling into what Kirsten Hastrup (2013: 2) summarizes excellently as the following: "There is no us and them, no definitive boundaries between human and non-human, and no space for science outside of the world it engages with."

Actor-Network Theory and Hybridity

One of the most famous theoretical approaches discussing nature and culture as one is Bruno Latour's *Actor-Network Theory (ANT)*. A central argument within ANT is that all things – human and non-human (Latour 2005: 72) – are intimately entangled through a variety of networks and interactions (Op. cit.: 65). These entanglements, being manifold in form and shape (Jones 2009b: 314) and unstable in nature (Latour 2005: 24), “[...] make up the entirety of the unfolding fabric of life” (Jones 2009b: 314). Furthermore, Latour (2005: 76f.) argues that all the entities constituting a network need to be understood as *actants*, meaning agents actively shaping their interactions. This, was true for humans just as much as for non-humans (ibid.). Hence, the ties and connections describing our world needed to be seen as hybrid, ever-changing formations of who and what we and our surroundings are (Op. cit.: 248). The background for Latour's idea can be found in his book ‘We have never been modern’, in which he asserts that the Western world has never actually reached modernity, and luckily so (Latour 1993: 47). By modernity, Latour is referring to the period after the establishment of ‘the modern Constitution’ (Op. cit.: 37), which was a product of the Age of Enlightenment (Armstrong 2008: 125). As part of this ‘modern Constitution’, nature and culture have been turned into separate realms (ibid.). This separation, according to Latour (1993: 12), has not been established in other parts of the world and it has actually also never been existent for us (Op. cit.: 47). All we had to do was to allow ourselves to be what we actually are – non-modern – and to return to an understanding of the world in which nature, society and technology are seen as symmetrical, hence evenly represented entities (Op. cit.: 47; 95).

ANT makes use of ideas of *hybridity*, which have been developed further by other scholars. Hybridity here refers to the merging of the human with non-human, animate and inanimate elements, of living organisms with technology (Fall 2010: 1997f.). What separates studies purely focused on hybrids from ANT are the former's stronger emphasis on more open, spontaneous and unpredictable ‘forms of becoming’ (Jones 2009b: 315). Furthermore, the explicit carving-out of individuals as *not pure* is also characteristic for hybridity-theories (ibid.). Probably the most famous work on hybrids has been provided by Donna Haraway (2004: 7f.), whose *cyborgs* are physical embodiments of the just described amalgamations. In Haraway's cyborg world, “[...] people are not afraid of their joint kinship with animals and machines, not afraid of permanently partial identities and contradictory standpoints” (Op. cit.: 13). Nature,

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according to her, is a co-construction which is mutually created by the human and the non-human (Giblett 2011: 28f.), and which again shapes all human and non-human entities. Eventually, all hybrids are nature and culture, and all nature and culture is hybrid: “Nature and culture implode into each other and disappear into the resulting black hole” (Haraway 2008: 172).

Political Ecology

Another, more political view on nature-culture is provided by *political ecology*. Even though highly criticized by Latour (2004) for keeping nature and society too separated, it is worth mentioning the approach at this point. This is because, albeit not directly talking about nature-culture hybridity, political ecology deeply engages with a variety of questions related to this theme. Scholar from new ecology for instance critically assess “[...] how the relationship between society and nature has been defined and conceptualized, how access to land and resources is controlled in a variety of contexts, and how environmental costs and benefits are distributed” (Fall 2010: 1997). During the interviews conducted for this thesis, some of the interlocutors brought up similar considerations, which shall be introduced in this thesis’ analytical discussion.

Ecological systems, according to new ecology, cannot be understood outside of notions of power and political influence which exist at local, regional and international scale (Adger et al. 2005: 78; Wisner et al. 2004: 6ff.). The perception that “[...] environmental change and ecological conditions are the product of political process” (Robbins 2012: 19f.) is thus well-established in political ecology. Scholars from new ecology often take on the standpoint that the functioning structures of nature management today do not entail enough rights and agency in favor of the local communities living in the environments managed (Op. cit.: 13). They point out that “[...] local systems of livelihood, production, and socio-political organization have been disabled by officials and global interests seeking to preserve the “environment”” (Op. cit.: 21). These local systems, it follows, urgently need to be re-integrated into adaptation and development interventions – something CbA and EbA appear to be striving for.

3.2 Nature-Culture in this Thesis

From the broader discussion on dichotomies or symbioses of nature and culture, this section now zooms in on certain approaches and scholars that are of great utility for the thesis at hand. The sub-chapter at hand hence constitutes this thesis' core theoretical basis, and is needed to answer WQ4.

William Cronon and the Trouble with Wilderness

William Cronon's analyses of *wilderness* constitute the starting point of these theoretical elaborations. Looking at nature and culture through a social constructionist lens, Cronon (1996: 69) argues that wilderness eventually is nothing more but a human invention. He states that wilderness has been turned from a place full of danger and unpredictable hazards into a sacred space in need of being protected (Op. cit.: 72f.). This transformation had happened mainly due to two cultural constructs, termed *the sublime* and *the frontier*, which converged to re-create wilderness in their own terms (Op. cit.: 72). By *the sublime*, Cronon is referring to conceptualizations of romanticism which evolved in Europe over a relatively long time span (ibid.). *The frontier*, on the other hand, had arisen out of the longing for the wild and the primitive, which used to exist in early American settlement times (ibid.). Hence, it was more distinct for North America's 'new' inhabitants (ibid.). The merged construction of modern wilderness entailed the romantic view of it as "[...] a flight from history. Seen as the original garden, [wilderness] is a place outside of time, from which human beings had to be ejected before the fallen world of history could properly begin" (Op. cit.: 79). Simultaneously, Cronon argues, wilderness represents a refuge from the exhaustions of civilization, a form of freedom returning the human being to its roots (ibid.).

This perception of wilderness as pristine land that has remained untouched by humanity sees Cronon as deeply problematic: By defining and embracing wilderness as a place where humanity is not, he argues, we reproduce dichotomies of nature and culture (Op. cit.: 80f.). Thereby, we excluded the solutions needed for environmental and others problems (ibid.). If wilderness can only exist without human beings, Cronon goes on, it essentially gets lost the moment we enter it (ibid.). By developing such a conceptualization, we wrested ourselves from our own option to live in harmony with our environments and to develop a form of responsible and sustainable environmentalism (Op. cit.: 81). Hence, "[w]e mistake ourselves when we suppose that wilderness can be the solution to our culture's problematic

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relationships with the nonhuman world, for wilderness is itself no small part of the problem” (Op. cit.: 70). This issue, according to Cronon, becomes particularly visible in the exclusion of local populations from their land for conservationist reasons: Many indigenous groups had lost their homes over the white people’s wish for an illusion of wilderness that did not mirror the actual relation between nature and society (Op. cit.: 79). In sum, hence, we

[...] see wilderness as something separate from humanity – as untouched by human labor and culture, on the one hand, and as a place where one’s behaviour is free and unconstrained, on the other. Both ideas are problematic; both result, ultimately, in the destruction of what they value (Spirn 1996: 94f.).

If we want to solve our environmental problems, Cronon (1996: 83) suggests, we need to accept that humanity has been living with and in nature for the time of its existence on earth. It was time to stop idealizing wilderness out there, and to start idealizing our and other (also indigenous peoples’) environments as shaped by and shaping humanity (Op. cit.: 85). Only by doing so, Cronon concludes, we can work on the environmental challenges around us (ibid.). Most of these actually found their origins in our immediate surroundings (ibid.). Hence, understanding nature as ‘home’ in rather all-encompassing terms is for Cronon the ultimate starting point for a more sustainable being on earth (Op. cit.: 89). This definition, the scholar concludes, includes the city as much as what we now term wilderness, it includes humans and non-humans, and eventually refers to where we make our living (ibid.).

It is this particular idea rather than the social constructionist understanding of ‘all is culture’ that is of great importance for the thesis at hand: Even though Cronon starts from the perspective that nature is constructed, his final argument stands much closer to synergic perceptions of nature-culture, as he makes the point that we always have and always will live in a symbiotic relationship with our environments.

New Ecology

Another thesis-relevant approach to nature-culture can be found in *new ecology*-literature. Countering traditional biological ecology in many of its arguments (Zimmerer 1994: 108), new ecology takes point of departure in the environmental end of the nature-culture continuum, yet manages to lay out some central ideas on middle-ground. The core theme in new ecology

is that biophysical environments function through instability, disequilibria and even chaotic processes (ibid.). The approach thereby clearly opposes the “[...] premises of biological ecology qua systems ecology as practiced during the 1960s and the 1970s” (ibid.), in which nature existed in a state of stability and equilibrium. Furthermore, new ecology functions in line with modern systems thinking, in which many systems are understood as organic, ever-changing and unpredictable (Morgan 2005: 9). As a response to empirical findings that were irreconcilable with traditional ideas of systems ecology (Zimmerer 1994: 110), new ecology evolved during the 1980s (Op. cit.: 109). Due to the classical emphasis on stable systems, it is claimed in new ecology, environmental management processes have contributed to the degradation of nature: Following classical ecological paradigms of equilibria, it was expected that

[...] exploitation-driven changes in the system represent only temporary deviations from a steady state. Insults to ecological systems can therefore be healed simply by relaxing harvesting pressure or reducing direct damage to resources; the system can be expected to go back to “normal” (Norton 1996: 51).

It is this dangerous assumption of stability that, according to new ecology, has led to too unconcerned environmental practices (ibid.). Embracing the principle of instability in nature on a wider scale could thus not only change how we approach and work with our environments, but also lead to major changes of environmental policy on global, regional and local levels (ibid.).

At the same time, however, new ecologists conclude from the unstable state of nature that our environments will not automatically lessen or deform when coming in touch with humans (Jones 2009b: 316). Nature is here not understood as a separate, pure realm in need of being protected from human intervention, and whose borders human beings violently trespass (ibid.). Rather, nature existed as a multiplicity of systems which were open for change and fluctuation, and in which actors of all kinds – human and non-human – interact through various forms of exchange (ibid.). In order to engage sustainably with nature, it was hence greatly important to apply “[...] flexible environmental management strategies that accommodate at once change, risk, complexity, and development based on local participation” (Zimmerer 1994: 109). All the above points, particularly however this last one

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on sound environmental management as suggested by new ecologists, are highly relevant in the context of adaptation. They shall hence be given particular attention in the analytical discussion.

New ecologists furthermore argue that there is little point in trying to establish general principles and grand theories on the functioning and organization of ecosystems due to the latter's ever-changing character (Norton 1996: 51). Thus, more focus should be on local systems and interactions (Op. cit.: 52). The knowledge gained from such small-scale investigations could then be shared and combined with knowledge from local communities (ibid.). Out of these highly specialized knowledge-pools, practices for local participatory management could be developed (ibid.). Bryan Norton, however, partly disagrees with this notion. He points out that new ecology has been facing a dilemma in regards to the issue of change for a long time. This impasse relates to the question of how to define what kinds of changes are positive, and which ones are negative in environmental impact (ibid.): Norton argues that when new ecologists describe environmental systems as open and ever-changing, and when they depict humanity's entering into these as not necessarily problematic, they accept the notion that change is normal and important (ibid.). Simultaneously, however, they also claimed that certain changes to our environments, which are based on an understanding of nature as stable, can be harmful (Op. cit.: 51).

Norton states that we need to develop systems of understanding in relation to change in nature that function on multiple scales, and not only locally (Op. cit.: 52f.; 64). Even though it was true that everything in our environments is undergoing constant change, the rate of this change depended on scale – the larger the scale, the slower the change (Op. cit.: 57). Therefore, one could talk about 'relative stability', as large-scale factors change so slowly that they actually appear rather constant in relation to the fast pace of change occurring on smaller scales (ibid.). Norton argues that if we manage to establish ways to grasp this broader, multi-scalar characteristic of nature and its change, human beings will understand themselves more as part of their environments, as being part of the 'bigger picture' and having a role in it (Op. cit.). As a consequence, they will act more responsibly, thereby distinguishing positive from negative change: "Individuals, in a properly functioning system, will act in ways that contribute to, rather than destroy the values that emerge on the larger ecosystem scale" (Op. cit.: 62). Norton's point on scale is extremely useful in adaptation contexts, where the dilemma of

upscaling at the expense of local rootedness is highly debated (Annex 3-Session 9). It shall hence be applied in the analytical discussion.

As became clear in this section, new ecology is an approach that is still in its making and subject to a multiplicity of criticism. Simultaneously, it can be highly useful and change-generating for our perception of and approach to nature-culture relationships: New ecology can positively shape bottom-up nature management (Zimmerer 1994: 118), and can show us “[...] the place of people in landscape [...]” where nature-culture synergies create rather than destroy (Adams 1996: 172).

Dwelling

This section provides an overview over some of the most important concepts in *dwelling*. *Dwelling* here refers to a certain way of *being in the world* that is very much process-based and hence stands in opposition to Cartesian dualist perspectives on nature and culture (Jones 2009a: 266). More specifically, dwelling perspectives set themselves apart from Western ideas on forms and processes of nature and society in three ways: 1. Life, in dwelling, is the production and re-shaping of form, rather than “[...] the revelation of pre-existent form [...]” (Ingold 2002: 173). 2. The individual is understood as *being in the world*, rather than facing the world as an external entity. 3. Out of the first two points, it can be deduced that in dwelling, the world becomes a meaningful place for living beings through their inhabitancy of it, not because it offers pre-defined and for everyone and everything identical features (ibid.).

A greatly important scholar within dwelling is Tim Ingold. His writings are inspired by Martin Heidegger’s work ‘Building Dwelling Thinking’, in which Heidegger developed the argument that we can only fully appreciate what earth has to offer by respectfully sharing it, rather than by controlling and ruling it (Jones 2009a: 267). Ingold describes his own development from understanding the world through a building perspective to grasping it in terms of dwelling. Proponents of the building perspective look at the world as a pre-made entity, into which they enter to live on this planet (Ingold 2002: 178ff.). This leads to a separation of the world and its inhabitants, which Ingold finds deeply problematic (Op. cit.: 177f.). Ingold refers to Heidegger when he makes use of the term *building* to illustrate his point: He claims that we are now living in times where building a house is seen as necessary in order to be able to dwell on earth

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(Op. cit.: 185). In an actual dwelling perspective, however, building was itself part of dwelling, part of being on earth and part of shaping life, oneself and one's environments (ibid.). Human beings might distinguish themselves from non-human beings in their ability to envision something before it actually becomes materialized reality (Op. cit.: 186). This, however, was only possible because we were already dwelling in the world, not because we are able to take on a position that lies outside of the space we plan to build on: "In short, people do not import their ideas, plans or mental representations into the world, since that very world [...] is the homeland of their thoughts. Only because they already dwell herein can they think the thoughts they do" (Op. cit.: 186). Such dwelling perspective, according to Ingold, dissolves the distinction so often made between evolution and history, between nature and culture. Humanity's development of skills and the production of historical artefacts are just as much historical and cultural as they are evolutionary, where forms and capacities of living organisms develop and change (Op. cit.: 186f.). Our dwelling in the world is always shaped by how our environments have evolved due to our ancestors, which again will affect what and how we will shape and how we, ourselves, will be formed (Op. cit.: 196).

Two other core concepts in dwelling as informed by Ingold are those of time and space. In brief, he argues that "[f]irst, human life is a process that involves the passage of time. [And] [s]econdly, this life-process is also the process of formation of the landscapes in which people have lived" (Op. cit.: 189). *Landscape*, according to Ingold, is not a fixed space or 'nature' (Op. cit.: 190). Rather, it is each and everyone's perception of the surroundings they dwell in (Op. cit.: 193). It is full of different meanings that are attached to certain spaces and which, collected in their totality, inform our landscape (ibid.). It is "[...] the world as it is known to those who dwell therein, who inhabit its places and journey along the paths connecting them" (ibid.). All our landscapes are relational, hence existing due to our interrelationships with humans and non-humans in the present and in the past (ibid.). In similar vein, Ingold discusses temporality. Here, he first outlines what he calls a *taskscape*, which are the interrelated activities we conduct as part of our dwelling (Op. cit.: 195). The measuring unit of the taskscape is social time, just as meaningful space was the measuring unit for landscape. The temporality of the taskscape is social, because it cannot be measured quantitatively, but qualitatively, because it can be judged as 'good' or 'bad', because it includes relationships, and because we never stand outside of this passing of time: "This passage is, indeed, none other

than our *own* journey through the taskscape in the business of dwelling” (Op. cit.: 196). If the landscape is our perception of our surroundings based on relations and meanings, and the taskscape is the passage of time through interrelated, social activities in our dwelling, it obviously becomes difficult to separate the two. Ingold therefore eventually dissolves the distinction. However, he argues that we need to understand “[...] the fundamental temporality of the landscape itself” (Op. cit.: 201), thus the passing of social time in our making and being made of landscapes.

Many scholars see in dwelling the opportunity to “[...] build a fuller account of the complex processes of life, which does not divide off and privilege the ‘social’ in narrow terms” (Jones 2009a: 272). It is exactly due to this ability that dwelling is of such relevance for this thesis. Adrian Franklin (2002: 71) for instance sees in dwelling the basis for a *new anthropology of nature*. He argues that, with Ingold’s elaborations on how culture makes and is made by land- and taskscapes, anthropology gets a completely new and exciting perspective (ibid.). Others, however, are slightly more critical towards dwelling. It is for instance sometimes argued that political and socio-economic dimensions of power and inequality are not sufficiently addressed in dwelling (Jones 2009a: 269). This issue is also related to locally oriented forms of adaptation as the ones this thesis deals with. Paul Cloke and Owain Jones, even though generally arguing in favor of dwelling, elaborate on some other pitfalls the approach needs to deal with in order to remain applicable in our times. One relates to the issue of true, authentic nature and hence also authentic relationships between people and nature, which has been particularly shaped by Heidegger: In modern society, the two scholars argue, ideas of nature as alienated from the modern, the technological and the industrial, and as only romantically shaped by the past urgently need to be adjusted (Cloke & Jones 2001: 657). Dwelling had to include more modern nature-culture relationships, and to stop being “[...] conducive to fixed-point notions of authenticity” (ibid.). Furthermore, they criticize the oneness and rootedness of people and landscape as presented in dwelling. Cloke and Jones make the point that such ‘idyllic local boundedness’ was problematic in times of technologies and mass production, and that “[o]ne person’s inclusive local idyll will be another’s ambivalence, and yet another’s exclusion” (Op. cit.: 661). In order to function in and with contemporary landscapes, dwelling thus needed to account more for dynamic, contested and overlapping dimensions of space and place (ibid.).

Signe Howell: REDD+ and the Nature/Culture Divide

In the final section of this theory chapter, I shall outline how the scholar Signe Howell has applied nature-culture in a study on the Reducing Emissions from Deforestation and Forest Degradation (REDD+) program in Indonesia, Tanzania and the Amazon. Howell (2013: 149) draws from multiple scholars who positioned themselves in the center of the nature-culture continuum, a method also utilized in the research at hand. Her elaborations are highly applicable and have large explanatory power in regards to the central debate of this thesis.

Howell's main argument is that the REDD+ initiators based their projects on the ontological and epistemological misconception of nature being separated from culture, or, more specifically, of forests existing outside of society (Op. cit.: 147). REDD+ is a UN-led program which works against deforestation and towards sustainable forest management in developing countries through payment schemes (Op. cit.: 151). The separation of nature and society, Howell argues, remains visible in all REDD+ programs (Op. cit.: 152). Policy-makers had planned in accordance with this division (Op. cit.: 153). Thereby, they had created what Arturo Escobar terms 'the coloniality of knowledge and nature', "[...] which not only marginalized local knowledge, but also essentialized the notion of nature as wilderness" (see Cronon further above) (ibid.). REDD+ had been perceived as a forestry-, not a social project, and the main challenges were seen as technical rather than human-related in nature (ibid.). The misconception of nature as separate from culture, Howell points out, stands in strong contrast to the symbiotic relationships nature and society often exist in for the local communities the REDD+ program aims to work with (Op. cit.: 162). Due to local NGOs' clear opposition to REDD+' socially exclusive approach, the initiative had strongly worked on its notion of nature and society, and boundaries appeared to get increasingly blurred (Op. cit.: 147). The 'nature' project had turned into a complex 'society' project (ibid.).

The protests, however, did not actually manage to break down the nature/culture dichotomy, as the claims the NGOs brought forward were more political than theoretical (Op. cit.: 154): A core point the organizations made was that local people had the right to the forests they should be excluded from, as their ancestors had been living and working at these very same places for many generations (Op. cit.: 155). Furthermore, it was argued that local people had the knowledge needed to take care of forests in a sustainable manner (ibid.). That many of

these local groupings do not perceive nature and society as separate entities, however, was hardly ever mentioned (ibid.).

The lack of claims along this nature-culture-synchrony by policy-makers, practitioners and local representatives alike, Howell argues, is to a critical degree responsible for the only half-hearted attempts of environmental organizations and programs like REDD+ to change the dichotomy (Op. cit.: 160). The WWF, for instance, even though clearly trying to shape its image as a conservation organization that is also interested in human development, lacked “[...] signs to indicate a conceptual collapse of the boundary between nature and society” (Op. cit.: 159). Furthermore, Howell argues that the blurring of these boundaries might not be due to actual conviction, but to monetized incentives in the form of funding opportunities (ibid.). In sum, Howell points out, neither policy-makers nor local activists actively question the nature/society dichotomy, even though both groups adhere to different discourses and knowledge practices (Op. cit.: 160). Keeping the nature/society division long-term, she claims, is however impossible if one wants to achieve actual change for human beings and the environments surrounding them (Op. cit.: 162). It is precisely this understanding and the dilemma that comes with it that have shaped the debates arising as part of this research to a critical degree, and that hence shall be given great importance in the analytical discussion.

This theory sub-chapter elaborated upon a selection of perspectives from the nature-culture paradigm. All of these perceive of nature and society as belonging together: William Cronon emphasizes that nature does not only exist far away from humanity, but rather always surrounds us. New ecology describes nature as an open system which human beings enter into, and in which they can shape positive change. In dwelling, nature and society are inseparably intertwined in their constant shaping and re-shaping of each other. Howell concludes that development initiatives cannot be successful if nature and society continue to be treated as separate entities. In the now following analytical discussion, and in line with WQ4, these perspectives shall be applied to this thesis empirical data.

4. Analytical Discussion

In this analytical discussion, the findings from the thesis' data gathering process shall be presented and explained. With the help of the academic debate on nature-culture relationships, new dimensions will be added to the gathered material (Kvale & Brinkmann 2009: 238). In addition, the theory helps to provide more feasible conclusions and a way forward in regards to this thesis' findings. I conducted the data gathering process in an explorative manner, meaning that I aimed for a deeper understanding of *how* EbA and CbA relate to each other rather than for the testing of a hypothesis such as 'EbA and CbA are the same/different' (Op. cit.: 191f.). As a result, the various aspects found dictate the structure of this analysis, rather than theoretical considerations (ibid.).

4.1 EbA and CbA – The Overall Impression

This first part of the analytical discussion assesses how practitioners and experts describe the relationship between EbA and CbA, and how they argue for the points they are making. Thereby, WQ2 gets answered.

The most central point of knowledge gained from the data gathering process was that on an overall level, the practitioners and experts talked to did *not* understand EbA and CbA as being separable from each other, and even more strongly emphasized that they *should* not be separated from each other. However, as will become clear throughout this analytical discussion, this overall impression could not be sustained in its entirety when taking a closer look at certain interviewee- and participant statements, and when taking broader related dichotomous debates into account.

When asked how EbA and CbA related to each other, many of the interlocutors characterized the approaches as complementing and reinforcing each other, as being naturally integrated and intersecting pieces (interviews Alam 2016b; Kamp 2016; Singh 2016; Staff GIZ Bangladesh 2016; informal conversations during conference). Furthermore, Saleemul Huq, Senior Fellow at the International Institute for Environment and Development (IIED) and Director of the International Centre for Climate Change and Development in Bangladesh (ICCCAD), who is an expert on the link between climate change and sustainable development (IIED 2016c), announced at the end of the conference that CBA11's theme would be *EbA* (fieldnotes from

participant observation). Hereby, he made clear how crucial a mutual involvement of environmentally- and bottom-up, people-centered approaches is for sustainable adaptation and development.

Nature-Culture in EbA and CbA

Many practitioners and experts explained their overall agreement to the notion that “[...] if you do, IF you do EbA properly, it's the same as CbA. And if you do CbA properly, it's the same as EbA” (interview Reid 2016) by referring to the link between nature and culture. Saleemul Huq for instance argued in an interview:

I regard both as simply different doors through which you enter to the same place. One has the word EbA on it, the other one has the word CbA on it. When you enter the door, you come into the same room. So, effectively, you're talking about an ecosystem in which people live.

Others even referred to the ‘community’ as being part of an ecosystem (interviews Kamp 2016; Singh 2016), and explained that both CbA and EbA eventually simply were ways to live with and in the natural environment (interview Staff GIZ Bangladesh 2016). Particularly practitioners from development organizations that also have an environmental focus made such emphasis. Among these was Kevin T. Kamp, who is Deputy Chief of Party at the US-development organization Winrock International and who is involved in the Climate Resilient Ecosystems and Livelihoods project in Bangladesh (Winrock International 2016). Furthermore, Vijaya P. Singh, Assistant Country Director in the Energy, Environment, Climate & Disaster Risk Management Unit of the United Nations Development Programme in Nepal (business card), argued along these lines. Finally, the staff members from the Bangladesh-office of the Gesellschaft für Internationale Zusammenarbeit (GIZ), a German organization with focus on sustainable development (GIZ 2016), need to be mentioned in this context.

Many of the interviewees described the separation of EbA and CbA as artificial, and claimed that it was not wise to keep this segregation alive if one wanted to create sustainable adaptation measures (interviews Huq 2016; Project staff GIZ Vietnam 2016; Reid 2016; Singh 2016). Mozaharul Alam, Regional Climate Change Coordinator for Asia and the Pacific Region at the United Nations Environment Programme (UNEP 2016), argued that it was time to move past this strong emphasis on keeping intervention types separate where focus should actually

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be on the issues that unite them. Hannah Reid, Consulting Researcher at the International Institute for Environment and Development, who as part of her career has worked both in academia and spent a lot of time on the ground (interview Reid 2016), argued in similar manner: She pointed out that practitioners and institutions alike needed to think about EbA and CbA, nature and society or adaptation and development more holistically.

In more general terms, hence, practitioners and experts majorly perceived EbA and CbA as belonging together. They often explained this synergy by referring to the connection between nature and society. Bringing in nature-culture conceptualizations from William Cronon, it can be deduced that the interviewees did not understand nature as only existing away from human beings. They disagreed with the notion that our environments necessarily get destroyed by human intervention, as many environmentalists used to claim (Fall 2010: 1996). Instead, multiple interlocutors argued along Cronon's (1996) notion that answers to climate-related problems lie within rather than outside of connections between nature and society. Hence, excluding people was part of the problem rather than the solution (see also Jones 2009b: 309). A staff member from the GIZ in Bangladesh for instance expressed: "We all know by now that there is no point in building a fence around a forest to keep people out. Someone will always go in, and in order to make the whole thing sustainable, [...] we have to use our environments in a sustainable manner."

Not only Cronon's notions, but also ideas typical for new ecology-approaches could be found in the interviewees' statements. Many acknowledged that human beings naturally enter the open spheres of ecological systems, and that they can also create positive and non-destructive change in their mutual living-together with the environment (Jones 2009b: 316). This became for instance visible when Huq elaborated on 'people who live in ecosystems'. Also Sarder Shafiqul Alam, who is Senior Research Coordinator at ICCCAD (ICCCAD 2016) and has done a lot of action research as part of his career (interview Alam 2016b), argued along these lines. He explained that "[...] natural resources, and people, they are related, positively related" and stated that "[...] as a community, you have to adapt using the environment, or making use of ecosystems, it's a natural process." Vijaya Singh contended that

[...] using the ecosystem as an approach, I think we are neither compromising on the role of the community, nor are we trying to mix it with something, because it's

quite natural. [...] [W]e cannot say that the community is not a part of the ecosystem and that the community-based approach is different.

It was striking how explicitly and frequently many of the interviewees referred to the link between nature and society when explaining why EbA and CbA needed to be understood as belonging together. In his elaborations on sustainability as a buzzword, Ian Scoones (2007: 591) argues that emphasizing the connection between environment and development, hence between the natural and the social, has become a trend since the 1990s. One could thus argue that the interviewees' referral to nature-society is mainly shaped by the fact that the organizations they work for are following these trends in their agendas. However, all interlocutors appeared to be pointing towards nature-culture connections due the professional experiences they had gained, and thus out of conviction rather than out of fashion-reasons. They generally seemed to envision positive change as promoted in new ecology-approaches, namely through the bottom-up, locally oriented and sustainable management of ecosystems, which human beings are naturally tied to (Zimmerer 1994; Norton 1996).

Furthermore, the concept from new ecology that ecosystems exist in a state of constant instability and fluctuation (Zimmerer 1994: 108) became visible in some of the interviews. Hannah Reid from the IIED for instance expressed that "[...] ecosystems and the biodiversity that [people] rely on are changing" through both human interference and climatic changes, rather than being stable and predictable. Sarder Shafiqul Alam agreed to this point. As such, it can be deduced that many statements made by the people talked to fit well with elaborations from new ecology.

A highly interesting point made by the staff from the GIZ in Bangladesh was that the intimate and inevitable relationship between nature and society became particularly visible in densely populated countries like Bangladesh. Here, they argued, humans always resided extremely close to the natural resources needed, despite urban living conditions. These interviewees thus described people as always being in close interaction with the environment. This point is again in line with Cronon's (1996: 85) suggestions of idealizing nature around us rather than 'out there'. His concept of nature as existing in our immediate surroundings (Op. cit.) also became visible in CBA10's theme *Enhancing urban community resilience*. It was obvious that

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the linking of locally and often also environmentally oriented adaptation with urban contexts remained a relatively new concept and hence a challenging theme for the conference and the session facilitators (fieldnotes from participant observation). This was true both in terms of selecting suitable field sites and relating the individual sessions to the topic (ibid.). The conference theme however reveals that the urban is seen as an important space for adaptation. This again indicates that many adaptation practitioners and experts agree with Cronon's (1996: 89) definition of what is needed to create sustainability. The scholar argues that in order to live sustainably, we have to realize that 'home' is where we make our living, and that this space is natural and needs to be taken care of no matter where it is situated. That such an understanding of the natural is required and realistic became obvious during the field trips: Whether we visited slum areas around Dhaka where naturally existing basins depicted buffer zones against flooding, or went to see urban garden projects which positively influence urban heat islands (see Annex 2 for program of field visits), the importance of people's immediate environments for their everyday living was conspicuous (fieldnotes from field visits).

On an overall note, it can therefore be deduced that when looking at EbA and CbA, there exists a difference between the relationship of nature and culture as presented in the literature, and practical perceptions of this issue. EbA and CbA in the literature are debated as two individual approaches, with one representing the natural, and the other one the societal realm of adaptation (Girod et al. 2012; Rahman 2014). EbA is discussed as more of a natural science approach, whilst CbA is seen as a locally and socially oriented, and generally less scientific adaptation measure (Colls et al. 2009; Ensor 2011; Girod et al. 2012; Heltberg et al. 2012). By discussing EbA and CbA in these rather separate terms, the literature keeps the Western division of nature and culture as depicted in this thesis' theory chapter alive. In practice, however, many interviewees emphasized EbA's and CbA's, and thus nature's and culture's connectedness, and sometimes even intertwinement. Their descriptions are closely related to new ecology-depictions of 'people's place in landscape' (Adams 1996: 172), where nature-culture relationships con- rather than destruct. Saleemul Huq's portrayal of the "[...] natural and people together" or Sarder Shafiqul Alam's elaborations on bottom-up management and the positive utilization of resources at local scale prove this point. Additionally, rather than understanding wilderness and nature as being the best where people are not, the

interlocutors expressed inclusive perceptions of how to create a sustainable being on earth, as promoted by Cronon.

Similar Challenges

The practitioners and experts also described EbA and CbA, and thus nature and society, as belonging together when they discussed the challenges the two approaches are facing. Many interviewees agreed that, as they took on the perspective “[...] that EbA and CbA should be the same thing, then that means that I automatically assume that it's the same problems for both of them” (interview Reid 2016). The major challenge they identified for both EbA and CbA related to the issue of scale. Particularly those interlocutors working in both academia and practice emphasized that what was needed to effectively tackle climate change was both a horizontal as well as a vertical, the policy level influencing enlargement of the approaches (interviews Alam 2016a; Huq 2016; Project staff GIZ Vietnam 2016; Reid 2016; Singh 2016). Saleemul Huq from ICCCAD and IIED summarized the dilemma as the following: “At local scale, bigger scale, national scale, global scale. At all those scales, we are losing the battle [against climate change]. [...] And so, to me, that is the biggest problem. And it's not EbA versus CbA, it's both, both are losing. They are only scratching the surface.” However, Hannah Reid raised the question whether aforementioned expansion was actually possible without losing the bottom-up notions as well as the context-specificity needed in EbA and CbA. During a session on EbA, this issue was fiercely debated. Many of the practitioners working with local adaptation and development critically wondered whether using the term *scale* in relation to something so context-dependent as EbA and CbA did not actually remove the ideas and values lying at the heart of these approaches (Annex 3-Session 9; fieldnotes from participant observation). Throughout an interview, Reid explained that only very few cases of successful upscaling are known in the field, and that these are facing a variety of challenges as part of their efforts. Such challenges arose for instance when governments had to work cross-sectoral. Upscaling thus poses a challenge to both EbA and CbA.

The tensions arising in the practical debate about whether or not EbA and CbA can and should be scaled up clearly mirror the dilemmas in new ecology. Here, many scholars argue that the establishment of large-scale management principles and theories is useless due to the ever-changing character of ecosystems (Norton 1996: 51f.). They therefore promote small-scale

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management approaches that make use of local knowledge (Zimmerer 1994: 109). In similar vein, practitioners contend that EbA and CbA cannot be scaled up due to the highly localized and context-specific knowledge needed for the approaches. On the other hand, many experts claim that climate change can only be tackled when bottom-up and environmentally oriented approaches are brought to a bigger scale in number and on a policy/institutional level. Bryan Norton's (1996) argument on upscaling can be added to this context: Upscaling is thus not only needed to create more as well as more institutionally anchored adaptation activities. Also, it will allow people to understand the bigger system of change in nature, and themselves as part of it. Only such understanding will enable them to distinguish positive (for instance through EbA and CbA initiated) change from negative (for instance climate change-related) change, which in turn will make them act more sustainably (ibid.). One thus needs to find ways to scale EbA and CbA up without endangering the approaches' core character traits – being bottom-up, people- and environment-centered – to make them effective in the future (ibid.). The parallels between the possibilities and challenges new ecology as an approach is facing, and the debates experienced as part of this thesis' data gathering process were striking. As such, drawing from the field of new ecology could provide both a helpful frame for convincing others of the necessity to enlarge the scale of EbA and CbA, and possibly also inspiration for how to generate such sustainable upscaling.

Old Wine in a New Bottle?

When asked why, if EbA and CbA essentially were the same, the approaches even existed separately, many of the practitioners explained that nothing new was being done, but that simply new labels were put on old approaches. They furthermore pointed out that new terminology had always been introduced in development and environmental work. A staff member from the GIZ in Bangladesh for instance concluded:

[...] there is nothing new in either of the concepts. Basically, it is just doing what's already done, or it's continuing a natural evolution. [...] I happened to have attended one of those [courses on EbA], and then discovered, yeah, I'm sorry, but that's already what we were taught twenty years ago in university.

Almost all interviewees agreed that the activities taking place on the ground, may they be called EbA or CbA, were highly similar to what used to be done in development and

environmental work in the past (interviews Alam 2016a; Huq 2016; Kamp 2016; Project staff GIZ Vietnam 2016; Reid 2016; Staff GIZ Bangladesh 2016; Ullah 2016). Vijaya Singh from the UNDP admitted: “The activities are not new, because planting trees is not new. Growing seeds in a nursery is not new. We are doing the same thing.” Similar observations can be made in regards to depictions of what defines an EbA- and a CbA project in the literature: Many development professionals would agree that the diversification of agriculture or the use of participatory management strategies (Colls et al. 2009; Magee 2013) do not actually depict new ways of development or environmental work. The question thus arises why new terminology is being introduced for already existing approaches. The interlocutors named multiple reasons for this phenomenon. The one most commonly referred to, and the one also most fiercely discussed during CBA10 (fieldnotes from participant observation), was summarized felicitously by a staff member from the GIZ in Bangladesh:

It’s this kind of constant re-discovering of what is important. Right now, I think what is very much driving though is [...] the strong expectation with the donors, be it organizations or let’s say nations, and with the receiving countries, that there will be a huge amount of money flowing to climate-related type of things. [...] But what stamp you put on [a project] depends very much on what the trends are, and where the money is coming from (similar points were made during interviews with Huq 2016; Kamp 2016; Project staff GIZ Vietnam 2016; Reid 2016; Ullah 2016).

Hence, the change of terminology in general, and the application of the terms EbA and CbA, in particular, is seen as more related to trends in development and adaptation. These are in turn connected to where funding is provided, rather than to an actual engagement with what defines the approaches. Zooming in from this general change of terminology to the merging of nature and culture, Signe Howell (2013: 159) critically observes a related phenomenon. She argues that the lack of change in understandings of the nature/culture dichotomy partly stems from the condition that boundaries between the two entities often only get blurred to receive funding, not out of actual conviction. This distorted the actual meaning and utility of this synchrony (Op. cit.). Applying Howell’s point to the context of this thesis, a slightly different conclusion can be drawn: Many practitioners agreed that a variety of problematic issues existed in the context of using EbA and CbA as buzzwords. However, their point was *not* that

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the approaches are artificially *merged* in order to receive funding, but rather, that they are artificially kept *separate* for this purpose:

Nothing is diverging here. The whole thing [EbA and CbA] has rather been artificially thought apart, and has maybe also been artificially separated in order to acquire funding. [...] If you can get money with that, then that's in itself not problematic. It only gets problematic when you then try to keep this artificial separation viable [in the implementation], and when you also try to keep it on the agendas of the ministries (interviews Staff GIZ Bangladesh 2016; also Huq 2016).

In similar manner, the project staff from the GIZ in Vietnam argued that applying a pre-made, artificially separating and eventually activity-limiting template due to trend- and funding-reasons was dangerous: "What can we do where, which methods can we utilize where? Instead of just applying the ready-made model EbA and then everything is great, and every other method is wrong – I don't think that works." Howell's critique on nature and society as buzzwords hence still holds in this context. However, by describing the artificial *separation* rather than merging of EbA and CbA as the problem, the practitioners' assessment fits much better with Howell's (2013) core argument that the segregation of nature and society is hindering the successful implementation of development work, rather than with the particular one she is making on funding. This phenomenon is highly interesting, as it makes visible once again how many of the practitioners and experts already understand EbA and CbA, and thus nature and society, as belonging together to a critical degree.

Returning to the overall issue of changing terminology, many development practitioners also made the point that adjusting terminology for funding and presenting old measures as something new was in itself *not* problematic, if the work done still generated positive changes for local people and their environments. Even though a staff member from the GIZ in Bangladesh remarked that using terminology in accordance with financial opportunities could generate wrong expectations and lead to a loss of transparency (see also Rist 2007), many interviewees still agreed that the end would justify the means. A staff member from a development organization for instance described the issue in the following manner:

So, call it what you want! [...] I mean, I am on a project [...], and because it says climate resilient [in it], the funding comes from a climate fund [...]. The reality is,

it's a project that has been ongoing for two decades, and it's about community management of ecosystems. It's not about climate. We hardly do anything about climate. [...] So, you know, if it's about skill and knowing the flavor of the day, ok, good, we know the flavor of the day, and we will ensure that we're putting the right toppings on the ice cream cone, if that's what it takes to sell it.

This point appears highly surprising at first, as one would imagine that what a project is called both reflects its main objectives and to a certain extent defines what is done on the ground. The above quote, in combination with statements from other interviewees, seems to refute this conclusion. Furthermore, critical voices from scholars engaged in buzzword-debates quickly come to mind, scrutinizing particularly development work as being full of empty phrases, with *development* in itself eventually being nothing more but a buzzword (Rist 2007). Philip Ireland assesses in this context that development workers often focus less on what a term actually entails, but more on utilizing language “[...] to suit their ends” (Ireland 2012: 106). He warns that such tendencies create the risk of “[...] repeating well-critiqued patterns in development” (ibid.). Returning to the above quote, however, the interviewee continued: “But at the end of the day, [...] I’m not concerned of what you call it, as long as I understand how to get there [to the solution], and I got tools that help me along the way.” In addition to the just named critical points, one hence also needs to deduce that development workers put a lot of emphasis on creating improvements for humans and potentially also their environments, rather than letting their achievements be limited by terminology. Nevertheless, the issue debated here shows that more work needs to be done to move theoretical project terminology and practical achievements closer together.

In sum, it can be stated that in the context of EbA and CbA, development practitioners did not necessarily see the shifting of terminology for funding or in accordance with trends as a problem, as long as this did not hinder the successful realization of a project. The latter often demanded that EbA and CbA, and thus nature and culture, needed to be equally considered in a project. This point makes clear one more time how important the integration of EbA and CbA, of nature and society appears to be for many of the practitioners.

It is about Human Adaptation

Another reason brought forward by many interviewees as to why EbA and CbA cannot (for many) or should not (for all) be separated was that eventually, both EbA and CbA constituted forms of *human* adaptation to climate change (interviews Alam 2016a; Project staff GIZ Vietnam 2016; Reid 2016; Singh 2016). This point was reinforced during the conference, where both field visits and sessions dealt with different forms of human adaptation, resilience and vulnerability reduction (fieldnotes from field visits and participant observation). That focus in both EbA and CbA is eventually on the *human* is quite an interesting point, as a similar argument is made in the literature as to why EbA is an anthropocentric, and not an environmental approach (Sierra-Correa & Cantera Kintz 2015: 387). Here, hence, literature and practice seem to overlap to a certain extent. In the literature, however, aforementioned argument is not used to make the point that EbA and CbA are inseparable from each other. It is more to say that EbA does not tap into the old ‘environmentalist trap’ of excluding human beings for the sake of nature conservation (Fall 2010: 1996; Sierra-Correa & Cantera Kintz 2015). The same argument is thus used for different purposes in theory and practice.

One possible conclusion from the above is that the gap between how EbA and CbA are understood in theory and practice can be proven once again, as the practitioners use the same argument for entirely different purposes than the literature. However, one could also deduce another, more critical point: The interviewees make the argument “[...] that the whole ecosystem-based adaptation is for the benefit of the community, because ultimately, our goal is that we learn to make the community resilient” (interviews Singh 2016; also Alam 2016b; Huq 2016; Project staff GIZ Vietnam 2016). Based on this perception, one could question whether the practitioners have actually understood nature and society as intertwined, or whether they eventually still only focus on humanity’s well-being. However, all the interviewees who made the point that EbA and CbA are similar because of both approaches focusing on human adaptation also argued along Sarder Shafiqul Alam’s (ICCCAD) lines. The latter concluded that “[...] human beings are dependent on natural resources”, and that human adaptation is best possible with the help of ecosystem services (also interview Project staff GIZ Vietnam 2016). The interlocutors hence still saw human adaptation and human existence as being closely connected to and dependent on natural environments. As such, they were not making the point that nature finally does not matter. Nevertheless, their take

on EbA and CbA as human adaptation indicates that the interviewees' understanding of nature and culture as belonging together might not be as unconfined as a first glance suggests. Therefore, it is necessary to take a closer look at some of the points made during interviews and informal conversations. This shall be done in the now following section.

4.2 The Closer Look: Separating Histories

The fact that the interlocutors could argue for the link between EbA and CbA in terms of nature-culture relationships is most probably connected to the circumstance that, even though many people talked to now see the approaches as closely related, they described them as originally stemming from different ideological backgrounds. A staff member from the GIZ in Bangladesh summarized:

[...] the only thing where I would say there is actually a difference between the two, is where they are initially coming from. And I would say with community-based adaptation, it was much more, let's say poverty, sort-of rural development type of organizations- and projects-driven, whilst the EbA concept was much more from the [...] natural resource management type of organizations-driven.

Hence, many interviewees argued that EbA evolved out of green, conservationist perspectives on adaptation, and as such used to place ecosystem and biodiversity adaptation before human adaptation. CbA, on the other hand, constituted an approach inspired by work in the field of international development (interviews Alam 2016a; Alam 2016b; Reid 2016; Singh 2016; Staff GIZ Bangladesh 2016; Ullah 2016). Positioning the approaches in the realm of sciences, some of the interviewees, such as Mohammad Rahmat Ullah, Assistant Project Officer within the field of Ecosystem Improvement and Livelihood at the International Union for Conservation of Nature in Bangladesh (IUCN 2016), described EbA as rooted in the natural sciences, and CbA as having a background in the social sciences (also interview Alam 2016a). The above depictions fit well with the ones in the literature, where EbA is also often described as a perspective traditionally shaped by environmental ideologies, and CbA as being more influenced by social and developmental views (Forsyth 2013; Girot et al. 2012; Rahman 2014). Moving away from the overall impression of EbA and CbA as one, some interlocutors like Hannah Reid critically argued that such differentiation was sometimes still visible in practice today, particularly on an institutional level, but that it has been dwindling in recent years. In regards to EbA, she for instance pointed out:

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And often, organizations with an environmental focus tend to give it lip service with a view to sort-of ticking that community box, ticking the social box, and I think we've seen a little bit of that with ecosystem-based adaptation, as well. I think some of the environmental organizations have been a little bit opportunistic, and seen it as a way to get climate change funding, as a way to position themselves in the climate change negotiations. But the emphasis has very much primarily been on helping ecosystems and biodiversity for themselves, and not for the purpose of helping communities adapt. [...] There's quite a sectoral divide between the different agencies that deal with different things, so, it's understandable. And the donor agencies reinforced that. [...] [But] I think the global arena is changing a little bit and pushing us to think a little bit more holistically about how we tackle some of these problems in a slightly less blinkered, focused, sectoral way. It's encouraging us to try and think about bigger pictures and what activities on the ground could address all of these major international initiatives.

The IIED-researcher not only indicates here that there still sometimes exists a divide between EbA and CbA on the basis of separated understandings of nature and society, the general focus on human adaptation notwithstanding. Also, she argues that institutional structures in development and adaptation keep this divide alive. This is quite an interesting point, as it becomes clear from it that an individual's understanding of how nature and society relate to each other are dependent on how organizations and donor institutions present and deal with this relationship. Hence, what is potentially needed is more effort on organizational- and donor-levels to overcome what is left of the divide between nature and society. According to Reid, this process has already started, but still needs more attention in the future.

Another conference participant described in an informal conversation how EbA in Uganda was still often driven by conservationist and thus exclusionist ideas. This, he stated, resulted in people not understanding the value of the environments they got excluded from. He argued for a more integrative promotion of EbA and CbA, as letting people be part of their natural environment and its management was the only way to make them understand nature's intrinsic value and thus, to live more sustainably. Mozaharul Alam from UNEP described that the issue of how much focus needed to lie on conservation and ecosystem management was

viably debated in EbA, but that this discussion was evolving towards more integrated and socially inclusive understandings of what the EbA approach should entail. This tendency is often not sufficiently elaborated upon in the literature (Girod et al. 2012). Here, the approaches are still often discussed in separate terms, and not enough credit is yet given to the fact that EbA projects are now often seen to resemble community-based adaptation projects in their utilization of locally directed, participatory methods (see IIED 2016a for an example of where this is done). Simultaneously, the circumstance that many practitioners perceive CbA projects to only function sustainably when making use of environmentally based solutions deserves further attention (for instance interview Alam 2016b). However, the literature more and more emphasizes that EbA projects, for instance, contribute to a *no regrets*³ approach to climate change (Mensah et al. 2012: 6). The reason for this is that EbA projects can provide for benefits on cultural, social and economic levels by improving educational possibilities or diversifying livelihood opportunities (Colls et al. 2009: 2; Doswald et al. 2014: 185; Naumann et al. 2013). Such lines of argumentation might constitute the starting point for a more integrative approach to EbA and CbA in the literature.

It needs to be made clear that not all interviewees agreed on the issue of EbA and CbA stemming from different ideological backgrounds: Whilst many argued in line with this point, some saw the *origins* of both EbA and CbA in human adaptation, and thus did not understand them as separately shaped by environmental or developmental standpoints (interview Project staff GIZ Vietnam 2016).

In sum, it can be deduced that when leaving the overall level of assessment and zooming in on specific statements of interviewees and conference participants, the general picture of EbA and CbA as one gets slightly distorted: Most of the interlocutors saw a certain level of traditional conceptual differentiation between EbA and CbA as underlying the approaches. All people talked to agreed that this separation was rather restrictive than useful in practical work, and many described it as slowly disappearing due to this reason. However, individual statements from conference participants on organizational and practitioners' procedures proved that this process has not yet been completed. Looking at this issue in nature-culture

³ ""No-regret" measures are activities that yield benefits even in the absence of climate change" (Climate-ADAPT 2016).

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terms, many of the practitioners and experts talked to overall perceived EbA and CbA as only functioning as one, due to the understanding that nature and society cannot be separated from one another if a sustainable being on this planet is striven for. Taking a closer look, however, one finds that an entire *merging* of nature and culture as perceived by experts and practitioners is still lacking. Rather, a transition towards nature-culture understandings still seems to be ongoing. This point first appeared surprising: After all people talked to had clearly stated that EbA and CbA should not or even cannot be separated from each other, the argument that they sometimes still are disconnected seemed confusing at first glance. Eventually, however, the phenomenon can be explained, which shall be done in the following paragraph.

Directional Perspectives

This thesis argues that practitioners understand EbA and CbA as belonging together due to the important and positive linking of nature and culture as described in new ecology and by Cronon. Yet, many of them still appear to perceive of the approaches as having a *directional* component in regard to the merging due to the roots of EbA's and CbA's evolvement: EbA is still rather perceived as integrating human beings into nature, whilst in CbA, humans are seen to embrace nature. This is true in relation to the people talked to, but particularly also in regards to those the interviewees talked *about*. One could now argue that change is always related to the dimension of time, and that the transition from seeing the approaches as separate – keeping in mind their backgrounds of evolvement – to seeing them as one has simply not been completed entirely yet, but will in the future. Alternatively, however, one might say that the academic, cultural and organizational background of the people working within the fields of adaptation and development is still strongly shaping the direction in which they see nature and society in a symbiosis, and is thus to a certain extent reinforcing the origins of the two approaches in this directional dimension. A rather extreme conclusion from this would be that the transition towards nature-society in practical terms can first be moved further forward when modern Western systems of knowledge (which development and adaptation institutions are part of) exist outside of the dichotomous relationship between nature and culture. Many scholars however claim that they do not at this point in history (Jones 2009b: 309). No matter how much we practically understand the relationship between EbA and CbA, between nature and culture as intertwined, our ontological and epistemological

backgrounds cannot but be shaped by the institutions of knowledge we are part of. These institutions still exist majorly within the modern divide, rather than the merging of nature and culture (ibid.). That this was also true in regards to the people talked to, and not only in relation to the ones the interlocutors referred to, became visible in multiple interviewee statements (for instance interviews Kamp 2016; Singh 2016). The following by Saleemul Huq summarizes the issue well: “What they mean, is ecosystems with people in them. And then, there is an interaction between the two. And for me, it’s the other way around, it’s about people who live in ecosystems.” Returning to Hannah Reid’s argument that we are being encouraged “[...] to try and think about bigger pictures and what activities on the ground could address all of these major international initiatives”, however, the prospect exists that institutional changes, at least on a donor- and organizational level, might be underway.

This thesis argues in line with Signe Howell (2013: 160) that the connection between nature and society with the benefits such symbiosis entails needs to be more strongly established. Only by doing so can directional takes on nature-culture be overcome. It is not claimed here that the in the Western knowledge system shaped dichotomy of nature and society can easily be replaced. However, this thesis still perceives it as realistic that just named dichotomy can be influenced, and furthermore, that the transition towards nature-culture can be moved forward *simultaneously* within and outside of these institutions. To achieve this, the more active promotion of middle-ground theoretical frameworks from within the nature-culture paradigm needs to take place. This should be done particularly in academia and institutions, but also still among practitioners. In order to substantiate these claims, it is at this point necessary to elaborate in more depth on other dichotomous debates the interlocutors raised during conversations on EbA and CbA. This shall be done in the now following sub-chapters.

4.3 The Broader Debate

As indicated in the research question and further elaborated upon in this thesis’ introductory chapter, discussions on how EbA and CbA relate to each other are strongly shaped by broader dichotomous debates from the field of adaptation and development. This sub-chapter assesses which greater debates the practitioners and experts draw from in this context, and elaborates upon the standpoints the interlocutors took on in regards to these debates. Thereby, it answers WQ3 and shifts attention from the part of the research question that

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focuses on EbA and CbA to the elements that describe greater debates linked to the EbA-CbA discussion.

Adaptation and Development - An Important Unity?

Many of the development practitioners first brought up the earlier mentioned argument that there was nothing new about the way things were being done in relation to EbA and CbA, but then moved it to a different level, namely that of adaptation and development. They hence pointed out that EbA and CbA needed to be understood as one approach, that both approaches did not really represent anything new, and that the same was actually also true for adaptation. The staff from the GIZ in Bangladesh for instance claimed that “[...] it’s now called adaptation, but we were already doing this for a long time” (also interview Kamp 2016). Development practitioners and those working in both academia and practice alike agreed that adaptation activities performed on the ground did not distinguish themselves much from what has formerly been done as development (interviews Alam 2016a; Huq 2016; Project staff GIZ Vietnam 2016; Reid 2016; Singh 2016; Staff GIZ Bangladesh 2016). Hannah Reid (IIED) acknowledged that “[a] lot of tackling climate change is *not* new, and it really does need to build on DRR [disaster risk reduction] and development activities better.” This issue also became visible during the field trips in Dhaka, where traditional development organizations were implementing many of the projects that we visited. Furthermore, the activities we saw often resolved around livelihood improvements, waste management or education, measures which have also been carried out as part of development projects in the past (Annex 2; fieldnotes from field visits and informal conversations during field visits).

Reid’s appeal of adaptation having to build more on development is closely related to many of the demands made in the literature, where scholars essentially argue that the separation of adaptation and development is not useful (Adger et al. 2003; Huq & Reid 2004; Ireland 2011). The interviewees working in both *academia and practice* clearly shared this understanding. They agreed with Vijaya Singh’s (UNDP) statement that adaptation and development in the context of developing countries needed to function hand in hand and should therefore be dealt with intersubjectively. Sarder Shafiqul Alam from ICCCAD concluded that “[...] the best form of development is good adaptation. If a development system is in its best form, then the disaster cannot hamper much” (interview Alam 2016b). He was joined in

this claim by many other professionals, who pointed out that sustainable development was only possible when taking adaptation measures into account, and vice versa (interviews Alam 2016a; Alam 2016b; Huq 2016; Project staff GIZ Vietnam 2016; Singh 2016). This issue was also agreed upon during a session on community participation, where both the session chair and the session speakers made clear that separating adaptation and development was neither useful nor actually possible in practical terms (Annex 3-Session 2; fieldnotes from participant observation). Particularly among experts working in both academia and practice, there thus appears to exist a consensus on the need to work cooperatively with adaptation and development (Huq & Reid 2004; interviews Alam 2016a; Huq 2016; Reid 2016; Singh 2016).

Disagreements

The great potential of perceiving of adaptation and development as belonging together notwithstanding, some of the literature also points out that not seeing the need to think in terms of climate change in development work due to the impression of doing 'what has always been done' can be problematic. Scholars like Shardul Agrawala (2004) or Philip Ireland (2012) for instance warn that no extra efforts might be made to include the in adaptation work needed long-term perspective, or to strategically address climate change in development work. This could mean that an absorption rather than an actual integration of climate change into development would take place (Adger et al. 2003; Agrawala 2004; Ireland 2012). Some of the conference participants voiced a similar critique. Particularly practitioners coming from the field of adaptation clearly did see *practical* differences between the two approaches. They perceived of many development projects, as is also discussed in the literature on buzzwords, as simply utilizing climate change adaptation terminology as *in-terminology* (Cornwall 2007: 472) to receive funding. Thereby, they argued, money would both be misspent and the meaning of adaptation distorted (Annex 3-Session 11C; fieldnotes from participant observation). They raised the question whether projects addressing natural climate phenomena which have been occurring for thousands of years should be termed climate change adaptation projects, and many agreed that they should not. However, according to them, this was precisely what many development organizations were doing (*ibid.*).

Some adaptation practitioners furthermore stated that the *intention* to address climate change issues as well as the transformative character of adaptation, the trying of something

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new under changing conditions, was something that distinguished adaptation from development work (Annex 3-Session 2; Annex 3-Session 11C; fieldnotes from participant observation). The issue of intentionality is also brought forward in the literature on differentiations between adaptation and development (Huq & Reid 2004: 19). That some of the adaptation practitioners perceived of adaptation as having a transformative character proves once again that the concept is undergoing a shift away from continuity-oriented depictions (Zimmerer 1994: 112), towards more process-oriented notions (Heltberg et al. 2012: 151; Pelling 2011). In this context, multiple experts also argued that migration needed to be understood as a viable adaptation measure in the future (for instance interviews Huq 2016; Reid 2016), thereby arguing in line with some of the literature (Heltberg et al. 2012; Pelling 2011). That certain participants perceived of adaptation as having a transformative character *which development work lacks* is surprising, since such an understanding does not go along many of the scholarly debates on this issue. What separates adaptation from development in practice is hence not entirely identical with scholarly depictions on the topic.

Another conference participant pointed out that one needed to apply climate science when conducting a climate change adaptation project. If such science-references were missing, a project could not be termed an adaptation project (Annex 3-Session 11C; fieldnotes from participant observation). This is a highly interesting point, as it relates back to the modern differentiation between natural and social sciences, which divides nature and society from each other. It can therefore be deduced that particularly adaptation practitioners perceived of adaptation as being a more (natural) scientific approach, whilst development was a social way of dealing with vulnerabilities. Thereby, divisions between nature and society are actually kept viable on a practical level, proving once again that a transition towards perceiving of nature and society as one has not been completed yet. The nature-culture debate is as such also related to adaptation-development discussions, and not only to the EbA/CbA nexus. It was striking how many conference participants, as opposed to the group of experts named above, were still not convinced of the two frameworks necessarily belonging together. As part of the conference, the impression was gained that there still exists a great need to continue the dialogue on this issue, and thus the dialogue on nature-society linkages (fieldnotes from participant observation).

The critical debate of how adaptation and development relate to each other, however, was not only led by adaptation proponents. Also some of the development practitioners commented critically on adaptation wrongly overtaking what is supposed to be development. A staff member from the GIZ in Bangladesh for instance argued, just like adaptation practitioners above, that many of the problems now depicted as relating to climate change had actually been existing for a long time. The reason for this, however, was that they were man-made, and not just natural phenomena, as the adaptation proponents had argued. Terming and approaching these problems as climate issues was plain wrong, but many adaptation practitioners continued to do so. This was done because climate change was high on international agendas, and adaptation terminology was thus important to apply in order to receive funding.

Development and adaptation practitioners were hence using a similar argument (namely that not everything should be termed climate change or adaptation) to criticize the respective other. As different from the adaptation practitioners, however, the development workers made the point that adaptation measures *covered* rather than solved underlying political and socio-economic issues. One conference participant pointed out that it was problematic if adaptation activities now managed to protect people from flooding, but the local population would still die from hunger (informal conversation during conference). Another staff member from the GIZ in Bangladesh added that we needed to work more holistically on adaptation instead of only focusing on climate change-related issues. This, according to the literature, is something many CbA projects are already working towards (Forsyth 2013: 440). David Lewis discusses the just described issue of climate change as a covering trend-discourse in multiple of his publications. The Bangladesh-expert warns that too much focus on climate change might “[...] obscure other deep-rooted causes of insecurity and the policy efforts being made to address these problems” (Lewis 2010: 124). The selective attention on climate change thus falsely shifted the emphasis away from the highly needed work on socio-political dimensions of vulnerability (Op. cit.). That there is no way around such more all-encompassing measures for adaptation as pointed out by Lewis and the development practitioners became clear during the field visits: Many of the adaptation projects looked at were not only directly addressing climate change-related issues, but were also working on women empowerment, the creation

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of jobs or the establishment of shared community facilities (Annex 2; fieldnotes from field visits).

Besides Lewis' elaborations, the development practitioners' critique echoes well with political ecology-perceptions, where it is often denounced that power and political influence existing at local, regional and international scale are not sufficiently considered in society-nature relationships (Adger et al. 2005; Wisner et al. 2004). Also, Cloke's and Jones' concern expressed in relation to the dwelling perspective that "[o]ne person's inclusive local idyll will be another's ambivalence, and yet another's exclusion" (2001: 661) is well-applicable here. With the above quote, the scholars were pointing out that unequal and shifting local societal structures needed to be accounted for more strongly in dwelling. Utilizing this point in the given context, one could argue that in adaptation, more focus needed to be on addressing issues of underlying local (and international) societal power dynamics. The points made by the development practitioners thus match with a multiplicity of the literature related to this thesis' topic.

In sum, the buzzword-debate on adaptation and development appears to be less vehemently led in theory than among practitioners. Even though many experts agreed upon adaptation and development belonging together, a lot of the practitioners from the respective fields perceived of adaptation and development as two realms, whose labeling could easily be applied as negative buzzwords. Adaptation and development are thus actually more coherently understood as linked in the literature than this seems to be the case in practice. Since EbA and CbA are connected to debates on adaptation and development, and both again relate to the nature-culture paradigm, the following can be deduced: When *overall* assessing the relationship between EbA and CbA, practitioners perceive nature and society as more closely interlinked than theory. However, this tendency cannot be sustained when looking at the naturally following debate on adaptation and development. This point proves once again that more work needs to be done not only on a theoretical, but also on a practical level to overcome negative buzzword-understandings that eventually separate nature from society.

Academia and Practice – A Gap to be Overcome

Returning to the group of people who perceived of adaptation and development as belonging together, another highly interesting point these interviewees made needs to be outlined: They clearly agreed that activities on the ground were very much like what had been done in the past (interviews Alam 2016a; Huq 2016; Reid 2016; Singh 2016). Simultaneously, however, many of these interviewees pointed out that climate change adaptation was new on a *conceptual* level. In consonance with the literature (Agrawala 2004; Huq & Reid 2004), they depicted adaptation projects as *strategically* having a long-term *and* climate-oriented perspective, aspects which they did not see as necessarily present in the context of development work (interviews Alam 2016a; Huq 2016; Project staff GIZ Vietnam 2016; Reid 2016; Singh 2016). As such, and as in line with the literature, these interlocutors understood adaptation as *building* on development, as adding extra dimensions to its work (Adger et al. 2003: 191; interviews Alam 2016a; Huq 2016; Project staff GIZ Vietnam 2016; Reid 2016; Singh 2016). Interviewees like Hannah Reid from the IIED, Vijaya Singh from the UNDP, or Saleemul Huq from ICCCAD and the IIED acknowledged that such ameliorations were taking place on a strategic, rather academic level. They agreed that the introduction of new, adaptation-related terminology in regards to something that actually appears to be well-known on the ground could be bothersome in terms of practical work. Hannah Reid for instance concluded:

I think a lot of practitioners find it quite frustrating, because they're having to roll out new models, and they're having to fill in new log frames, [...] and actually, they know what they're doing, they know how to help local people, and why do they now have to do this whole new thing called adaptation that, you know, at the end of the day, is working at a household level in a similar way as a development project works.

The experts identified that there existed a gap between academia and practice in adaptation and development work, particularly in terms of understanding that the notion of adaptation itself could not be separated from development, but at the same time was more than doing business as usual. Also development practitioners perceived of the disconnect between experience and conceptualization, and depicted it for instance in the following manner:

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The scientific community [...] they love to sit there in the lab and understand. [...] For me, [...] it doesn't matter what color the cat is, as long as it catches mice. And so, if you presented me with a problem, I would say, ok, well, this is how I would approach that problem, then you can put a label on it, you want to call it this one, you want to call it that one, that's fine with me, but I'm not going to become too worried about what it's called. I'm not going to write a paper on it, I am just trying to do it, to improve the life of somebody, and at the same time conserve or make sustainable or improve an ecosystem, that has value to somebody. [...] How do I decide where to give and take? And that give and take isn't decided of the university, it is decided in the community. And it's decided in the home of every individual.

For someone working in development academia, such statement might sound harsh, since academia's aspiration in so many ways is to improve development in practice. Saleemul Huq, who is involved in both academia and practice, confirmed this point when he argued that "[...] the purpose of the research is not to get the journal article, the purpose of the research is to change something. It is to make something happen." Hence, getting to know that many practitioners see academic work as taking place quite far away from experienced realities and challenges on the ground is not easy to accept. One might now critically argue that this disconnect could just as much be based on a lack of interest for the academic world on the side of the practitioners as it might be on an actual lack of integration of theory and practice. However, even if this was true, the question would arise how such a disinterest could come about, and whether something needed to be done about it. No matter the origin of the academia-practice-gap in adaptation-development, it needs to be concluded here that due to this experienced disconnect, practitioners could only to a limited degree relate to the achievements academia generates. These are for instance the provision of mental models for practical work (interview Huq 2016), or the breaking down of a concept to feasible entities, "[...] helping us define what we mean by things and really collecting evidence on whether approaches work or not" (interview Reid 2016). Some of the interviewees working both within academia and practice, such as Hannah Reid, therefore concluded that

[...] you need people who can translate between what the practitioners know the situation is on the ground, and you know those highfalutin academic discussions.

You need people who can cross those two bridges. [...] Scientists do need to get better at working with people on the ground, [...] but I don't think that that means that we don't need the science. Because if we don't have the science, then we're never getting really strong evidence, and I think we need to make sure every decision we make is based on evidence.

4.4 EbA and CbA – A Way Forward

Translation might thus constitute a tool to bridge the gap between academia and practice in adaptation and development, in general, and between theory and practice in EbA and CbA as identified throughout this analysis, more specifically. However, this final section of the analytical discussion suggests another approach to this problem, indicating a way forward for the field of adaptation and development. Thereby, WQ4, which partly has been answered throughout the prior sub-chapters of the analytical discussion, will be answered in its entirety. In addition to having answered the first part of the research question, this analytical discussion will then also have elaborated upon both broader *practical* and *theoretical* debates related to the EbA/CbA nexus.

In its line of argumentation, the concluding section of this analytical discussion follows in many ways that of Signe Howell. The scholar points out that the artificial separation of nature and society in REDD+ projects results in the lack of effective and sustainable project implementation (Howell 2013: 162). She discusses how theoretical perceptions from the nature-culture paradigm are hardly ever drawn upon to pinpoint the problem of the conceptual disconnect between nature and society, or to argue against this separation (Op. cit.: 160). Howell is thereby hinting at the fact that such utilization could actually help overcome this hindering dichotomy.

In line with this point, this thesis argues that applying perspectives from the nature-culture paradigm that advocate for symbiotic models of nature and society could provide the bridging tool that is urgently needed to re-link academia and practice. By actively and purposefully promoting and applying synergetic nature-culture conceptualizations in adaptation and development theory and practice, and more specifically in the context of EbA and CbA, frameworks and models could be shaped which are coherently understood in theory and by

practitioners. This, in turn, would bring academia and practical work closer together and make their respective individual functioning *and* interactions with each other more effective and sustainable. Simultaneously, by coherently promoting symbiotic models of nature-culture on all levels, the transition towards understanding society and its environments as one could be pushed forward, a step which this thesis perceives as urgently needed to create more effective and sustainable work in adaptation-development (Op. cit.: 162). It is argued here that such active application of nature-culture needs to take place particularly on a theoretical level (including Western institutions of knowledge), but also still among practitioners (Op. cit.: 154). This is due to the fact that yet too much focus is on understanding particularly adaptation and development as negatively utilized buzzwords, and EbA and CbA as having a directional dimension. This thesis strongly agrees with Howell that perceiving of nature and society as separate is both erroneous and dangerous (Op. cit.: 147): It goes against the understandings of the people one aims to work with in development and adaptation work, and stylizes nature as being where humanity is not (Op. cit.: 153). This, in turn, leads to ineffective measures addressing climate change and human vulnerability being taken (Op. cit.: 162).

This thesis suggests that a more critical stance towards debates that perpetuate the division of the two entities in theory and practice needs to be taken on (Op. cit.: 160). Questions such as why practitioners still sometimes understand adaptation and development as buzzwords in negative terms, and how this negative understanding could be overcome, need to be addressed more strongly. Additionally, practitioners and academics alike need to investigate in more depth how institutionally shaped ontologies and epistemologies on nature and culture could be informed towards more symbiotic understandings of the two entities. Only by doing so can locally and environmentally oriented adaptation approaches generate actual change for human beings and the environments surrounding them (Op. cit.: 162).

A Second Step

As opposed to Howell's (2013: 155) experiences, however, the people talked to for this thesis did establish the link between nature and society as a core reason for why EbA and CbA cannot and should not be dealt with as separate approaches. Hence, it needs to be stated that the path towards understanding nature and society as one has already been entered in practice. However, it is also argued here that a lot of work still needs to be done in this regard, and that

an active striving towards nature-culture understandings in line with dwelling would constitute a highly useful guideline in this context. New ecology-frameworks as described in the literature are also perceived as greatly advantageous here. However, they appear to maintain the directional dimension from the environment to human beings on a *theoretical level* (hence not necessarily as found throughout this thesis' data gathering process, but in the theory), which has been criticized in this analytical discussion. In dwelling, there exists no entering of human beings into nature, or no nature embracing human beings any more, but rather a *being in the world*, a constant modelling and re-modelling of the human and the non-human through time and space (Ingold 2002). As such, dwelling perspectives do not actually privilege the social, but depict it as shaping and being shaped by its surroundings (Jones 2009a: 272). It is precisely this resolution of direction that we need to strive for, in order to achieve an actual merging of EbA and CbA, of adaptation and development and of academia and practice. Thereby, we could create more effective and sustainable ways to both adapt to climate change and to tackle what creates the phenomenon in the first place, namely our unsustainable being on earth. If we actually understood nature-society relationships more in terms of dwelling perspectives, we would perceive nature as 'our home' "[...] for which we take responsibility, the place we try to sustain so we can pass on what is best in it" (Cronon 1996: 89). However, we do not seem to completely have overcome building-notions of people building on and entering into nature (Ingold 2002: 178ff.) when we try to exclude people from environments (as a conference participant described in regards to EbA in Uganda), or when we refer to nature-culture relationships in directional manners. Also, none of the people talked to expressed an understanding of landscapes that would fit with dwelling-ideas: Here, our environments are perceived as shaping, shaped and re-shaping landscapes, which come about through our social spending of time in them (Op. cit.). Such a perspective, however, could be extremely useful to understand and work with nature-society relationships in more effective and sustainable ways.

Doing More

Yet, we do not only need to strive towards dwelling, but also have to overcome its weaknesses as depicted by Cloke and Jones (2001: 657-661). Some of the development practitioners are already doing so in regards to the scholars' argument that we need to adjust dwelling perspectives that romanticize stable, authentic nature to include more modern, industrial and

socially unstable understandings of it (ibid.). This became clear when staff members from the GIZ in Bangladesh pointed out that the close relationship between nature and society was particularly visible in densely populated developing countries, where a constantly changing, relatively poor society resided in urban contexts and yet still lived in close interaction with its natural surroundings. That our dwelling on earth is hence not only related to a stable, authentic place in nature 'out there', but takes place all the time, everywhere and with everyone (Cloke & Jones: 657-661; see also Cronon 1996) seems to be an idea some of the practitioners have already internalized. Thereby, they once again prove that first steps towards nature-culture have already been taken. However, more work still needs to be done in this regard, just as much as we also still need to address local and global dimensions of power, contestation and inequality more strongly. The latter point is often demanded by scholars from dwelling- and political ecology perspectives (Adger et al. 2005; Jones 2009a: 269; Wisner et al. 2004), and was addressed by many of the interviewees.

When including these additional layers, this thesis argues that thinking about nature and society, and thus about development and adaptation, and about EbA and CbA in terms of dwelling perspectives in theory and practice would constitute a promising starting point to reconnect academia and practitioners. Furthermore, it would make our work in the field of adaptation and development more effective and sustainable by moving the transition towards nature-culture forward. This is due to the fact that in this thesis and in line with Howell (2013), the separation between nature and society is perceived as artificial and counterproductive when it comes to working with and tackling climate change at any place in this world.

5. Conclusion

This chapter concludes on the outcomes from the analytical discussion above, thereby concisely answering this thesis' research question. The thesis found that on an overall level, many of the experts, practitioners and conference participants understood EbA and CbA as naturally and normatively belonging together, and regularly even as inseparably intertwined. They often argued for this synergy in terms of nature-culture interlinkages, on the background that EbA was perceived as originally rooting in environmental perspectives, and CbA as stemming from social studies and development work. Here, a clear difference from the literature could be identified, in which EbA and CbA are still predominantly discussed in separate and thus nature/culture terms. Overall, hence, an understanding of nature and culture as intertwined entities prevails on a practical level, a tendency which is still to a large extent lacking in theoretical considerations on the two approaches.

Many of the participants advocated for the belonging-together of EbA and CbA in manners that echo well with new ecology approaches. As part of these, our environments are understood as open, ever-changing systems into which human beings naturally enter, and which can be positively affected by local, bottom-up management approaches. Furthermore, the interlocutors argued in line with William Cronon's notion of nature being where we are, and as needing to be lived within instead of apart from. Zooming in on more detailed elaborations, however, the process towards understanding EbA and CbA, and thus nature and society, as one cannot be considered as finished, but rather as an ongoing transition, in which institutional ontological and epistemological backgrounds are still bringing a directional perspective to the nature-culture nexus. That this process has not been completed yet became even more visible when looking at the closely related debate on adaptation and development. Here, scholarly agreement on the belonging-together of adaptation and development, and thereby also of nature and society, appeared to be greater than the practical one. Many practitioners understood adaptation and development, a lot more than EbA and CbA, as negative buzzwords utilized by the respective other field to receive funding. Thereby, people argued, the terms' meanings got distorted and underlying issues covered rather than solved.

Furthermore, the interviewees indicated that there existed a gap between academia and practice in the field of adaptation and development, more general, and in regards to how the

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relationship between adaptation and development is understood. As part of this thesis, a cognate gap was also found in regards to EbA and CbA. The experts interviewed argued that adaptation activities on the ground looked like what used to be done in the past – a point many practitioners made – but that climate change adaptation was new on a *conceptual* level. They acknowledged that a stronger bridging between theory and practice was needed.

It is argued in this thesis that such bridging tools can be found in the more active promotion and application of theoretical considerations on nature and culture as one. This needs to be done particularly on a theoretical level, but also in practice. By doing so, frameworks and models could be shaped which are coherently understood in theory and by practitioners, moving the two realms closer together. It is suggested here that the dwelling perspective constitutes a useful point of orientation in this regard. This is because dwelling removes directional linkages between nature and society by depicting them as equally shaping each other through processes of *being* in the world. Furthermore, this thesis argues that the application of nature and culture as one could constitute the step needed to push the already started transition towards nature-society forward. In line with Signe Howell, this progress is perceived as indispensable if we are to make our work in the field of adaptation and development more effective and sustainable, as the separation of nature and society is artificial and counterproductive when it comes to working with and tackling climate change on this planet.

6. Perspectives – Further Research Potential

6.1 Nature-Culture in a Local Perspective

This chapter provides suggestions for how to extend on the work done in the thesis at hand. The first proposal that shall be made in this regard relates to this thesis' nature-culture debate: Focus has here been on how *practitioners and experts* understand the relationship between EbA and CbA, as well as which broader debates they link the approaches to. A logical next step would be, as is also done by Howell (2013), to take these issues to a more local level. It would be highly interesting to explore how local groupings understand the different approaches, and how these perceptions relate to nature-culture. The literature often claims that nature and society are recognized as a symbiotic entity in local developing country contexts (see for instance Howell 2013: 162). If so, how exactly do local populations perceive of this unity, and could it be deduced that their perspectives have influenced how practitioners understand nature-culture relationships? Do local groups understand time and space in similar terms as Ingold (2002) depicts them in his elaborations on dwelling, a perspective this thesis argues we should be striving towards? Addressing these and similar questions would widen our horizon as to how nature and society can be conceptualized as one, and how we can live and work more sustainably with our environments.

6.2 Resilience

I think, you know, at the most simple level, [...] communities are having to cope with disasters, climate change impacts, poverty, and they don't separate these things out at the household level. And we need to work out how to help them cope with all of those things (interview Reid 2016).

The above quote sums up the complexity that working within the realm of adaptation-development entails. What became visible throughout this thesis is that it is never sufficient to think and approach an issue within just named field one-sidedly. Only holistic perspectives on adaptation and development, including nature and society, political and socio-economic, local and global as well as scientific and practical factors, can help us tackle vulnerability – climate- and otherwise related – in a sustainable manner. Such holistic thinking also needs to take place on a conceptual level, rather than only in practical terms. Therefore, including further concepts and approaches in the debate started in this thesis constitutes interesting

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research potential for future studies. One such concept is that of resilience. *Resilience* is depicted as “[t]he capacity of a system, community or society potentially exposed to hazards to adapt, by resisting or changing in order to reach and maintain an acceptable level of functioning and structure” (UNISDR 2005: 4).

Looking at this definition, it becomes clear that resilience is a rather all-encompassing term, which holds the potential of tackling the complexities in the field of adaptation and development in a more holistic manner (interview Reid 2016). As such, focusing on resilience in the context of just named complexities would constitute a natural extension of the work done in this research. At the same time, however, the term resilience entails a lot of challenges due to its all-encompassing character traits. Hannah Reid acknowledged that resilience is a highly vague term, holding the risk of people “[...] arguing about semantics and what it means, and then, in different contexts, it means different things.” This tendency has been criticized by multiple interviewees (interviews Huq 2016; Kamp 2016; Reid 2016; Staff GIZ Bangladesh 2016). What meanings does the term resilience entail, and how applicable is it in regards to human beings? How could resilience help to bridge the gap between nature and society in adaptation and development work? How do dwelling perspectives as promoted in this thesis relate to resilience, and what does this relationship reveal about resilience’s ability to strengthen nature-culture synergies? These and other questions constitute compelling and important starting points for further assessments of trends and tendencies in the field of adaptation and development.⁴

⁴ For an interesting application of the concept of resilience in connection with ethnographic work, see Skrydstrup 2009.

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Interview Partners

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Alam, S.S., ICCCAD, Interviewed by: Richter, L. (24th April 2016b).

Huq, S., ICCCAD; IIED, Interviewed by: Richter, L. (30th April 2016).

Kamp, K.T., Winrock International, Interviewed by: Richter, L. (20th April 2016).

Project staff GIZ Vietnam. Interviewed by: Richter, L. (19th May 2016).

Reid, H., IIED, Interviewed by: Richter, L. (10th May 2016).

Singh, V.P., UNDP Nepal, Interviewed by: Richter, L. (17th May 2016).

Staff GIZ Bangladesh (two interviews with a total of four participants). Interviewed by: Richter, L. (19th April 2016).

Ullah, M.R., IUCN Bangladesh, Interviewed by: Richter, L. (20th April 2016).

8. Annex

8.1 Annex 1 – Interview Guide

1. Introduce yourself
2. Introduce your research
3. Informed consent:
 - a. You can withdraw from this interview at any point
 - b. If you have any questions or something is not clear, please don't hesitate to ask
 - c. You can always let me know if things are said off the record
 - d. Do you agree to quotes from this interview being used, and would you like to read them before publication of my thesis?
 - e. Is it ok to use your name and the name of your organization as part of this thesis, or would you prefer that this information is not being revealed?

Remember follow-up questions!

1. Could you tell me a little bit about yourself, your job position and how you know about EbA and CbA?
2. If you were to define the two concepts briefly, what would you say is EbA and what is CbA?
 - a. What would you say is supposed to be the major outcome of a CbA project and of an EbA project?
3. What are in your opinion the major differences between EbA and CbA?
4. What are the major similarities between the two approaches?
5. Which approach sells better/has a better reputation these days and why?
6. "The artificial separation between community-based and ecosystem-based approaches to adaptation is misleading, as in practice, ecological concerns are often at the heart of efforts by local community organisations" (Ecosystems and Livelihoods Adaptation Network 2012). Do you agree with this statement?
 - a. Why, or why not?
 - b. Would you term and describe EbA in itself as a new approach, or rather a development of CbA, and why?
 - c. Would you say that CbA and EbA are based on different epistemologies and different professional vocabulary? Why, or why not?

Dichotomy or Convergence?

7. In practice, EbA and CbA approaches are often blurred, and mixed into each other. This can mean that a project which for instance has been started as a CbA project
 - a. either officially has some EbA elements
 - b. is described as being EbA, even though the term is not officially being used anywhere.

Do you think this is problematic?

- a. Why?
 - b. Why not?
-
8. Both EbA and CbA are in the literature criticized for having their own pitfalls. In the literature on EbA, these are often a lack of knowledge about costs and benefits of EbA, the general limits of ecosystems to provide for adaptation, and the lack of funding. Regarding CbA, these pitfalls relate to wrong or artificial understandings of communities as homogenous groups, the question of who actually gets to participate how in CbA projects, and the problem of upscaling.
 - a. From your knowledge and experience, what are the major challenges EbA is facing?
 - b. From your knowledge and experience, what are the major challenges CbA is facing?
 - c. Would you say that the two approaches face a majority of similar challenges?
 - i. Why?
 - ii. Why not?

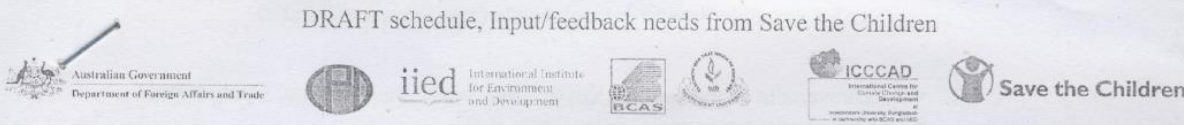
 9. Why do you think that there is a constant need for new terms, concepts and approaches within the field of international development, even though this might mean that what has already existed is being re-framed, and approaches get blurrier rather than clearer in their depiction?

Is there anything else you would like to add?

8.2 Annex 2 – Fieldwork Documents

Full Program

DRAFT schedule, Input/feedback needs from Save the Children



10th International Conference on Community Based Adaptation to Climate Change
22nd to 24th April 2016 in Dhaka, Bangladesh

Field Site 1: Dhaka North City Corporation

Visit to a Flood, water logging, heat stress, and garbage management site by CBA10 participants.

Day-2: 23 April 2016 (Saturday)

Time	Activity
07:30-08:00	Breakfast at Hotel in Baridhara, Dhaka
08:30	Depart from hotel to CPD, Mohammadpur, Dhaka city by three mini buses (12km~1h driving)
09:30	Arrive at Community Participation and Development (CPD)
9:45-10:30	Introduction of CPD, Presentation and discussion.
11:00-1:00	Visit Child and Youth club and discussion with the children of Child and Youth club on the knowledge of Climate change adaptation, Climate Vulnerability and Capacity Assessment process (CVCA), Visit a advocacy initiative (Canal Cleaning), Formation of team Details.

Team 1 – Facilitation By Mr. Zaman, Forhad Hossain, Mrs. Sultana Parvin Mary , Rokeya Khatun

A. Visit of “Bengali Medium High school”: 2 km from CPD Office:

- Discussion with teachers & SMC
- Observe a school awareness raising session
- Oxygen Bank.
- Complain/Suggestion box
- Plantation on wall.
- Waste management
- Demonstration of fire extinguisher use.

B. Visit of “Eco Friendly Child and Youth club” Nobodoy : 5 km form school.,

- Discussion on their learning.
- Discussion with Children and their caregivers. Climate Vulnerability and capacity Assessment (CVCA) - How they conduct, tools, approach towards policy makers.
- Achievement of the child & Youth Club: Advocacy achievement canal cleaning.
- Observe adaptation tools: Solar Bottle Bulb
- Transparent TI Sheet for Lighting.
- Visit an Advocacy initiative of Children: Canal Cleaning by Government.

Team 2 –Facilitated by Mrs. Afsana Azad , Abdur Rahim, Alamgir Haider, Saidur Rahman .

A. Visit of “Aronno Child and Youth Club”: 5 km form office,

- Discussion on their learning.
- Discussion with Children and their caregivers. Climate Vulnerability and capacity Assessment (CVCA) - How they conduct, tools, approach towards policy makers.

Dichotomy or Convergence?

DRAFT schedule, Input/feedback needs from Save the Children

- Achievement of the child & Youth Club: Waste management, Open dustbin
- Observe adaptation tools: Solar Bottle Bulb
- Visit an Advocacy initiative of Children: Canal Cleaning by Government.

B. Visit of "Dhaka Uddayan Public School": one km from Child & Youth club:

- Discussion with teachers & SMC
- Observe a school awareness raising session
- Oxygen Bank.
- Oxygen corner.
- Plantation on wall.
- Discussion with Headmaster and their facility by invitation
- Joint achievement: identified by children and School Management committee: Green clean and safe campus... Wash Room....

Team 1 and Team 2: Meet together at the office of the Ward Counsellor (Female)

- Visit of the office of Ward Counsellor (Female) for ward no. 29, 30, 32
- Discussion with Ward Counsellor
- Oxygen corner
- Visit roof top Garden.

13:30-14:30	Lunch at CDP Office, Adabor, Mohmmadpur
14:30-15:00	Discussion with CPD and Save the Children staff on their Child Center DRR and CCA activities
15:30-17:00	Travel and visit rooftop garden activities at Sher-e Bangla Agriculture University, Dhaka
17:00	Depart to Hotel in Baridhara, Dhaka from field
18:00-18:15	Arrive at Hotel in Baridhara, Dhaka and take rest

Day-3: 24 April (Sunday) another group of participants will visit the same activities

Time	Activity
07:30-08:00	Breakfast at Hotel in Baridhara, Dhaka
08:30	Depart from hotel to CPD, Mohammadpur, Dhaka city by three mini buses (12km~1h driving)
09:30	Arrive at Community Participation and Development (CPD)
9:45-10:30	Introduction of CPD, Presentation and discussion.
11:00-1:00	Visit Child and Youth club and discussion with the children of Child and Youth club on the knowledge of Climate change adaptation, Climate Vulnerability and Capacity Assessment process (CVCA), Visit a advocacy initiative (Canal Cleaning), Formation of team Details.

Team 1 – Facilitation By Mr. Zaman, Forhad Hossain, Mrs. Mary Sultana Parvin Mary, Rokeya Khatun

C. Visit of "Bengali Medium High school": 2 km from CPD Office:

DRAFT schedule, Input/feedback needs from Save the Children

- Discussion with teachers & SMC
 - Observe a school awareness raising session
 - Oxygen Bank.
 - Complain/Suggestion box
 - Plantation on wall.
 - Waste management
 - Demonstration of fire extinguisher use.
- D. Visit of "Eco Friendly Child and Youth club" Nobodoy : 5 km form school,.
- Discussion on their learning.
 - Discussion with Children and their caregivers. Climate Vulnerability and capacity Assessment (CVCA) - How they conduct, tools, approach towards policy makers.
 - Achievement of the child & Youth Club: Advocacy achievement canal cleaning.
 - Observe adaptation tools: Solar Bottle Bulb
 - Transparent TI Sheet for Lighting.
 - Visit an Advocacy initiative of Children: Canal Cleaning by Government.

Team 2 –Facilitated by Mrs. Afsana Azad , Abdur Rahim, Alamgir Haider, Saidur Rahman

- C. Visit of "Aronno Child and Youth Club": 5 km form office,
- Discussion on their learning.
 - Discussion with Children and their caregivers. Climate Vulnerability and capacity Assessment (CVCA) - How they conduct, tools, approach towards policy makers.
 - Achievement of the child & Youth Club: Waste management, Open dustbin
 - Observe adaptation tools: Solar Bottle Bulb
 - Visit an Advocacy initiative of Children: Canal Cleaning by Government.
- D. Visit of "Dhaka Uddayan Public School": one km from Child & Youth club:
- Discussion with teachers & SMC
 - Observe a school awareness raising session
 - Oxygen Bank.
 - Oxygen corner.
 - Plantation on wall.
 - Discussion with Headmaster and their facility by invitation
 - Joint achievement: identified by children and School Management committee: Green clean and safe campus...Wash Room....

Team 1 and Team 2: Meet together at the office of the Ward Counsellor (Female)

- Visit of the office of Ward Counsellor (Female) for ward no. 29, 30, 32
- Discussion with Ward Counsellor
- Oxygen corner
- Visit roof top Garden.

13:30-14:30 Lunch at CDP Office, Adabor, Mohmmadpur

14:30-15:00 Discussion with CPD and Save the Children staff on their Child Center DRR and CCA activities

Dichotomy or Convergence?

DRAFT schedule, Input/feedback needs from Save the Children

- 15:30-17:00 Travel and visit rooftop garden activities at Sher-e Bangla Agriculture University, Dhaka
- 17:00 Depart to Hotel in Baridhara, Dhaka from field
- 18:00-18:15 Arrive at Hotel in Baridhara, Dhaka and take rest

Transport:

Three Mini Buss with 12 seats from Hotel in Baridhara to Mohammadpur and Sher-e-Bangla Agriculture University area and back to hotel by the same bus.

Driver:	1. Mr.	- Coach no.	- Mobile no.
	2. Mr.	- Coach no.	- Mobile no.
	3. Mr.	- Coach no.	- Mobile no.

Field accommodation: Overnight at Hotel Blossom or at Hotel Summer Palace or at La Villa Western Hotel in Baridhara R/A, Dhaka

Field Visit Coordinator (all sites): Mr. Sarder Shafiqul Alam; Cell: +8801711840441

Local hosts focal person: Mr. - Mobile no.

Representatives from Local Host Organization:

1., CARE; Cell:1
2., CARE Cell:2.....
3., BCAS/ICCCADCell:3.....

Participants: Total 20-25 CBA10 Conference Participants will visit the mentioned sites per day from the hotel in Dhaka

Note: detail list of CBA10 field visit participants is being prepared for sharing to you soon.

The Care Program



garbage management systems are being modeled and mainstreamed into community development plans. Other activities include gender mainstreaming and capacity building of institutions.

Local communities, especially vulnerable groups, including the poor and women, are playing active roles in the project. In the early stage of the project, with the vision approach in planning, the project facilitated the space for local communities and duty bearers to discuss their aspirations, needs and their plans toward a creating a more resilient community. The positive changes being observed are increased community cohesion, community-led planning and proactive problem solving attitudes, women's role as disaster risk manager, enhanced capacity and positive attitude of service providers.

6. Activities being undertaken in the site for increasing resilience:

- Risk informed planning by the Community Development Committee (CDC)
- Local community men and women's livelihood activities in and around the slums
- Community managed/led garbage management system

- Risk awareness through EKATA (Empowerment through Knowledge, Attitude and Transformative Action) process
- Fire Service and Urban Community Volunteers demonstration of fire disaster control activities
- Ward Disaster Management Committee & Urban community volunteers
- Performance of Forum Theater to create mass awareness on climate and disaster



resilience issues

10th International Conference on Community Based Adaptation to Climate Change

Field Site: 1

Uttar Tetultola, Dakshin Tetultola and Medical Slum of ward no. 55 under Tongi of Gazipur City Corporation
Flood/Water-logging, environmental pollution, earthquake/building collapse and fire

22th to 24th April 2016



10th International Conference on Community Based Adaptation to Climate Change
22nd to 24th April 2016 in Dhaka, Bangladesh

Field Site 1: Tongi Town

Visit to a Flood, water logging, fire, heat stress, and garbage management site by CBA10 participants.

Group: A Day-1:22 April 2016 (Friday)

Time	Activity
07:30-08:00	Breakfast at Hotel in Dhaka
08:30	Depart from hotel to Tongi town, Gazipur District by three mini buses (25km-1h driving)
09:30	Arrive at Tetultala community area in Ward no 55, Tongi Town
09:30-12:30	Visit area- Uttar Tatultola, Tongi <ul style="list-style-type: none">• Visit risk informed planning by Community Development Committee (CDC) at Uttar Tetul Tala.• Community managed/led garbage management system• Visit alternate livelihood activities for men and women particularly shorting on Garments waste materials
12:30-14:30	Lunch and prayer Lunch at Broccoly Restaurant, House #6, Sector #9, Uttara Model Town
14:30-17:30	Travel to Medical Community in Ward no. 55 <ul style="list-style-type: none">• Visit alternate livelihood activities for men and women particularly shorting on Pollythine.• Risk awareness through EKATA (women led group) meeting• Performance of Forum Theater to create mass awareness to disaster risk (<i>child led awareness building initiatives</i>)
16:30-16.50	Travel to <i>Tetultola</i>
16.50-17.30	FSCD and UCV demonstrated mock drill on Earthquake and fire fighting
17.30	Depart to Dhaka /return to Dhaka
17:30-19:00	Arrive at Hotel in Baridhara, Dhaka and take rest

Field accommodation: *Overnight at Hotel Blossom or at Hotel Summer Palace or at La Villa Western Hotel in Baridhara R/A, Dhaka*

Field Visit Coordinator (all sites): Mr. Sarder Shafiqul Alam; Cell: +8801711840441

Local hosts focal person: Mr. Palash Mondal, - CARE Mobile no.01915229006

Representatives from Local Host Organization:

1. Md. Mamunur Rashid CARE; Cell:1 01922 69 92 64.
2. Md. Kamrul Hassan CARE Cell:2 01743 92 52 99
3. Md. Ariful Haque, BCAS Cell:3:01938 26 11 01

4. Transport:

Three Mini Buss with 12 seats from Hotel to Tongi Town and back to hotel by the same bus.

Driver:	1. Mr.	- Coach no.	- Mobile no.
	2. Mr.	- Coach no.	- Mobile no.
	3. Mr.	- Coach no.	- Mobile no.

10th International Conference on Community Based Adaptation to Climate Change
22nd to 24th April 2016 in Dhaka, Bangladesh

Field Site 1: Tongi Town

Visit to a Flood, water logging, fire, heat stress, and garbage management site by CBA10 participants.

Group: B Day-2: 23 April 2016 (Saturday)

Time	Activity
07:30-08:00	Breakfast at Hotel in Dhaka
08:30	Depart from hotel in Dhaka to Tongi town, Gazipur District by three mini buses (25km~1h driving)
09:30	Arrive at Tetultala community area in Ward no 55, Tongi Town
09:30-12:30	Visited area- Medical Community, Tongi <ul style="list-style-type: none">• Visit risk informed planning by Community Development Committee (CDC) at Uttar Tetultala.• Community managed/led garbage management system• Visit alternate livelihood activities for men and women particularly shorting on polythine
12:30-14:30	Lunch and prayer Lunch at Broccoly Restaurant, House #6, Sector #9, Uttara Model Town
14:30-15:00	Travel to Dakshin Tatultola in Ward no. 55
15:00-17:30	Visit alternate livelihood activities for men and women particularly Garments waste materials <ul style="list-style-type: none">• Risk awareness through EKATA (women led group) meeting• Performance of Forum Theater to create mass awareness to disaster risk (child led awareness building initiatives)
16::30-16.50	Travel to Olympia School
16.50-17.30	FSCD and UCV demonstrated mock drill on Earthquake and fire fighting
17.30	Depart to Dhaka /return to Dhaka
17:30-19:00	Arrive at Hotel in Baridhara, Dhaka for taking rest
19:30-21:00	Dinner at hotel restaurant

Field accommodation: Overnight at Hotel Blossom or at Hotel Summer Palace or at La Villa Western Hotel in Baridhara R/A, Dhaka

Field Visit Coordinator (all sites): Mr. Sarder Shafiqul Alam; Cell: +8801711840441

Local hosts focal person: Mr. Palash Mondal, - CARE Mobile no.01915229006

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4. Transport:

Three Mini Buss with 12 seats from Hotel to Tongi Town and back to hotel by the same bus.

Driver:	1. Mr.	- Coach no.	- Mobile no.
	2. Mr.	- Coach no.	- Mobile no.
	3. Mr.	- Coach no.	- Mobile no.

10th International Conference on Community Based Adaptation to Climate Change
22nd to 24th April 2016 in Dhaka, Bangladesh

Field Site 1: Tongi Town

Visit to a Flood, water logging, fire, heat stress, and garbage management site by CBA10 participants.

Group: C Day-3: 24 April (Sunday)

Time	Activity
07:30-08:00	Breakfast at Hotel in Dhaka
08:30	Depart from hotel in Dhaka to Tongi town, Gazipur District by three mini buses (25km~1h driving)
09:30	Arrive at Tetultala community area in Ward no 55, Tongi Town
09:30-12:30	Visited area- Dakshin Tatultola Community, Tongi Visit risk informed planning by Community Development Committee (CDC) at Dakshin Tetultala- in Ward no 55 <ul style="list-style-type: none">• Community managed/led garbage management system• Visit alternate livelihood activities for men and women as shorting on Garments waste materials
12:30-14:30	Lunch and prayer Lunch at Broccoly Restaurant, House #6, Sector #9, Uttara Model Town
14:30-17:00	Travel to Medical Community in Ward no. 55
15:00-16:30	Visit alternate livelihood activities for men and women particularly shorting on Pollythine. <ul style="list-style-type: none">• Risk awareness through EKATA (women led group) meeting• Performance of Forum Theater to create mass awareness to disaster risk (child led awareness building initiatives)
16::30-16.50	Travel to Monnu High School
16.50-17.30	FSCD and UCV demonstrated mock drill on Earthquake and fire fighting
17.30	Depart to Dhaka /return to Dhaka
19:30-21:00	Dinner at hotel restaurant

Field accommodation: Overnight at Hotel Blossom or at Hotel Summer Palace or at La Villa Western Hotel in Baridhara R/A, Dhaka

Field Visit Coordinator (all sites): Mr. Sarder Shafiqul Alam; Cell: +8801711840441

Local hosts focal person: Mr. Palash Mondal, - CARE Mobile no.01915229006

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3. Md. Ariful Haque, BCAS Cell:3:01938 26 11 01

4. Transport:

Three Mini Buss with 12 seats from Hotel to Tongi Town and back to hotel by the same bus.

Driver:	1. Mr.	- Coach no.	- Mobile no.
	2. Mr.	- Coach no.	- Mobile no.
	3. Mr.	- Coach no.	- Mobile no.

Dichotomy or Convergence?

The Save the Children Program

10th International Conference on Community Based Adaptation to Climate Change
Field Site No. 2

Australian Government
Department of Foreign Affairs and Trade

iiED International Institute for Environment and Development

SCAD


ICCCAD

Save the Children

Save the Children in Bangladesh
Humanitarian Sector

10th International conference on Community Based Adaptation to Climate Change.
Field Site No.
Mohammadpur, Dhaka

23rd and
24th
April 2016
FIELD SITE
for CBA10
at CPD,
Mohamma
dpur



Page 1 of 4

Name of Site:

Nobodoy, Mohammadpur of Dhaka North City Corporations (DNCC)

- Eco friendly Child and Youth club " Nobodoy/ Green Leaf Child and Youth club,
- Dhaka Uddayan Primary school/ Bengali Medium High school and
- Office of Ward Commissioner (Female) for ward no 29, 30, 32.

Location:

Located at Mohammadpur is at 23.7542°N 90.3625°E Western part of Dhaka city, Mohammadpur is one of the crowded areas of Dhaka with many slums name as Sunibir, Shekhertek, Adabor, Nobodoy, and Nabinagar.

Local Host organization:

Save the Children is the leading independent organization for children in need, with programs in 120 countries including the United Kingdom and United States. We have been working in Bangladesh since 1970 and today reach over 15 million people each year. With a staff of over 800 and a network of more than 100 partners, Save the Children is one of the largest child-rights organizations in Bangladesh. Save the Children aims to inspire breakthroughs in the way the world treats children, and to achieve immediate and lasting change in their lives by improving their health, education and economic opportunities. In times of acute crisis, Save the Children mobilize rapid assistance to help children recover from the effects of war, conflict and natural disasters. In October 2011, four Save the Children organizations working in Bangladesh came together to deliver our programs through a single new entity: Save the Children International. In Bangladesh, all activities of Save the Children can be put under a single cloud which is consists of 6 different sectors - Child Protection, Child Poverty, Health, Nutrition, and HIV/AIDS, Education, Policy Rights and Governance and Humanitarian Sector.

Vision: All children in Bangladesh realize their rights and grow to their full potential as active, respected citizens.

Mission: Save the Children in Bangladesh is the leading child rights organization with innovative, quality programs and advocacy, including during emergencies. To maximize impact for children, we will use resources efficiently and act with courage, ambition and integrity.

As Bangladesh is a disaster-prone country Save the Children thus works for all sorts of Humanitarian responses and preparedness to build a disaster resilient society.

Adaptation, mitigation and Disaster Risk reduction Activities in the site:

Project Title: Integrated Child Centred Climate Change Adaptation Project in Bangladesh

Donor: Department of Foreign and Affairs and Trade (DFAT)

Project Duration: 1st July'13 to 30th June' 17.

Project Goal: 'Community resilience is strengthened through an increased ability to anticipate, plan for and adapt to climate change impacts supported by local and national government systems in Bangladesh'.

To achieve this goal, project works on the following objectives:

Objective 1: The climate change adaptive capacity of children, caregivers and communities is increased through the Climate Vulnerability Capacity Assessment (CVCA) process.

Objective 2: The capacity and ability of local government institutions/systems and CSOs is strengthened to support communities in responding to the impacts of climate change at the

local level.

Objective 3: Climate resilient development approaches at the community, union, upazila, district and national levels are strengthened through advocacy.

Actions under different results

Under Result-1:

1. Assessment through CVCA s sequentially(Risk and Resource mapping, Risk and Resource union map, Seasonal calendar, Venn Diagram on DRR & CCA, Club's Action plan, SVCA
2. Green child & Youth Club: children's club wall, Front view.
3. Waste bin (Recycle and non-recycle).
4. Oxygen bank.
5. Hanging flower/ plant from Jute Shika(hanger).
6. Heat absorber: Roof top gardening.
7. Message of CCA (health, agriculture, fisheries)
8. Carbon Reservoir plot: Indigenous and Ornamental plant at pot.
9. Demonstrations on some best indigenous Practices at carbon reservoir plot.
10. Solar panel.
11. Transparent Corrugated Sheet at roof for sunshine (One or two) to reduce electricity using.
12. Plantation around the child & Youth club.

B. Urban context.

1. Change all conventional bulbs by ENERGY Savings lights.
2. All-time user of Energy-saving-appliances (home electronics, heating, cooling appliances).
3. Efficient use of electricity(all electric power OFF while outside and when inside-only during needed)
4. Smart use air conditioner, heating and cooling time at home.
5. Solar panel: Alternative Source of Electricity.
6. Buying products from recycled materials(jute, Cotton)
7. Less user of Tissue Paper.
8. Water savings initiative.
9. Plants inside house: Areca Palm/Golden Palm, Birds nest/Snake Plant, Money Plant.
10. **Limited use of Body spray, aerosol, room freshener etc.**
11. Cooking by gas and electric power **INSTEAD OF WOOD/TIMBER.**
12. Carbon Reservoir: Green yard (ornamental plants in Kitchen garden, lobby, Roof top and inside home), **vertical agriculture.**
13. Composting kitchen waste and food waste in garden/Pot.
14. Efficient use of water (Turn the water off while shaving or brushing teeth, Leak proof water supply appliances; **AND ONLY DURING NEEDED).**
15. Separate waste basket (Recycle and non-recycle).
16. Carbon Cutback Promotional works: Energy efficiency is good to the environment

Under Result-2 and 3:

1. **Waste management:**Separate waste basket (Recycle and non-recycle).
2. Community Savings initiative/ Oxygen bank
3. **Community led Approach:** activities from risk and resource mapping document-mound extension, Connecting road, Temporary bridge etc..
4. **Carbon Reservoir:** Block Plantation, Roadside plantation, Institutional plantation etc.
5. **Common Resource utilization** for aqua culture, Nursery, plantation.

6. Introduction of tolerant crop/horticultural crop: Saline tolerant, Drought tolerant crop/horticultural crop.
7. Indigenous variety of crop cultivation.

Under Result- 4:

A. Students

1. Bring science to life: Informing the students on climate change sites, climate animations games etc.
2. Influencing the High school students: understandings of climate-change drivers, impacts, and mitigation.
3. Promoting Climate change debate, art completion at school.
4. Carbon Sink: Green yard(ornamental plants in garden, Roof top and inside school)

B. Teachers: Influencing the teachers to teach students:

1. On climate change, ecosystems, impact and remedial actions.
2. To use climate change indication Activity card and Terminology to make familiar.
3. To arrange debate on climate change and impacts.
4. Carbon Sink: Green yard(ornamental plants in garden, Roof top and inside school)

"We Seek Climate Variability Resilient CHILDLED Communities"

"REDUCE, REUSE, REPAIR and RECYCLE"



10th International Conference on Community Based Adaptation to Climate Change

Field Site No. 2

**Roof Top Gardening: An initiative to make the city green
(Supported by Islamic Relief Bangladesh)**

Type of area:

Bangladesh is the most climate vulnerable country in the world where Dhaka is the capital of Bangladesh which is mostly crowded city by over exploitation of population. Owing to over exploitation, deforestation is a common issue on behalf of people's resettlement. Though we know "No matter where you live, forests make your life possible. When a forest is lost anywhere, people feel it everywhere." Considering this situation Islamic Relief Bangladesh take initiatives of Roof top gardening where Bangladesh has to be deficient in land for gardening.

Name of Site:

A rooftop garden is a garden on the roof of a building at Sher E Bangla Agricultural University, Agargaun, Dhaka on green roofing named as semi intensive rooftop garden with the financial help of Islamic relief, Bangladesh

Host Organization:

Islamic Relief Bangladesh is an International Non Government organization. Founded in 1984 a head quarter based of UK, currently works in 44 countries of the world. Islamic Relief Bangladesh works with 5 wings where Climate Change and disaster resilience department is one of them aiming to works for making the country disaster resilience with this changing climate. Islamic Relief supported for roof top gardening which will reduce the global temperature and can do balance on global CO2 emission. The Rooftop garden intervention established a bottom-up computation methodology and provide realistic assessment based on scientific analysis to government agencies, NGOs and civil societies. Here local govt. started green business by selling nursery plants from house to house with service of green van which make a social business group. Elected councilor issued letters from house to house, flat owner for raising awareness for rooftop gardening. Ward Disaster Management Committee (WDMC) members select participants for training of roof top gardening where training provided by IR,B. Rather IR,B provide green van to the plants hawker which improves the livelihood benefits of poor driver also.

Climate Change in the Region:

Dhaka is the most vulnerable city in Bangladesh where population density is 955 people per square kilometers with an annual growth rate of 3.28 per cent per year. This megacity is the most popular destination for the poor groups of the country and rural people which pour into Dhaka city nearly at a rate of 400,000 each year. Due to push and pull factors Dhaka city faces the migration of 37 percent, where most of the migrants are environmental migrants due to flood, cyclone, riverbank erosion, landslides, salinity intrusion etc. Continuation of this rate

resulting as In 2025 Dhaka will become the 5th largest megacity. Rather this gigantic population makes for an imbalance in environmental & ecological capacity. The world climate change is altering the pattern of life on the planet, causing widespread species extinction, migration; behavior changes thus create food shortage for human and other organisms. Presently atmospheric pollution along with CO₂ emissions in urban area is much greater than in 1900 which created an urban heat island (UHI) and undeniable environmental change. The UHI is the aggregate of all the heat absorbed and generated by buildings, roads, vehicles, etc and can result in the cities being as much as 3-10°C degrees warmer than their suburban and rural counterparts. The generation of UHI and environmental pollution of Dhaka city is much elevated than any other mega cities of the world due to lack of proper planning of urbanization and vegetation. It was also reported that 20% vegetation of Dhaka city was recorded in 1989 and then decreased to 15.5% and 7.3% in 2002 and 2010, respectively which is a direct threat for environment.

Description of Roof top Gardening:

Types of roof top gardening:

A standard roof top garden uses different structured bed including a wooden bed, wooden vertical bottle frame, wooden vertical pipe frame, bamboo structured bed, concrete bed etc.

Pots of roof gardening: concrete pot, plastic pot, earthen pot, gunny bags, bamboo basket, paper basket, half drum, and specialized cork sheet pot.

Placement of roof top garden: a) 10% relaxation space, b) 10% vegetables growing area which should not be more than 35% c) 10 %flowers and medicinal plants growing spot, d) 10%, fruits and e) 10 % spices part which should not be more than 20%.

Fertilizer of Roof Top gardening: The composts, organic matters, inorganic fertilizer and lighter soil, vermiculite, peat soil was used as a plant growing media which supply essential nutrients for proper growth and development of plants.

Management: The careful management practices and intercultural operations such as shoot pruning, root pruning, watering, fertilization, irrigation, mulching, pest control, removal of debris from drain are maintained to ensure long term success of the garden.

Plant Selection: less sunshine hours: leafy plants as spinach, lettuce, leafy coriander.

More sunshine hours fruit plants as tomato, eggplant, pepper, mango, guava.

Shady plants: strawberry, betel leaf etc.

Adaptation, mitigation, and Disaster Risk Reduction activities being undertaken in the site:

Environmental benefits in relation to develop of rooftop garden in urban areas, especially in Dhaka city were analyzed by measuring atmospheric CO₂, temperature and humidity in both inside and outside the garden. The CO₂ and temperature content of the atmosphere was lower in the garden than outside the garden roof. Interestingly, no differences were observed in humidity content in the garden and outside the garden. These results suggest that rooftop garden effectively reduces CO₂ content in the atmosphere as well as the urban heat island


effect. Therefore, rooftop garden improves the environment of Dhaka city as other mega cities of the world. It is expected that massive implementation of rooftop gardening in the city will decrease the urban heat island effect and CO₂ content of the atmosphere and will create new possibility of food security and safety, nutrition, habitat for wild life and employment also. Rather than rooftop gardening contributes to reduce the number of polluting air particles and compounds. Green roof systems are recognized as providing greater thermal performance and roof insulation for the buildings they are laid on. This garden prevents the pollution of urban, atmospheric air because plants act as natural filters of toxins. Rather absorbs heat during summer and release stored energy in winter- regulates urban temperature and to save electricity for the cooling demand during summer season in cities. In addition, rooftop gardening decreases urban runoff, increases the life span of the building materials, reduces noise, increases aesthetic feelings, biodiversity and urban amenities. This garden contributes to ensure food security, safety and nutrition. Rather planted areas are natural sound insulators and absorb more sound than hard surfaces which is very effective for buildings near airports, noisy nightclubs and factories.



Figure 2: Plants hawker is happy with his green van



Figure 1: Participants received practical training on roof top gardening



**10th International Conference on Community Based Adaptation to Climate Change
22nd to 24th April 2016 in Dhaka, Bangladesh**

Field Site 1: Dhaka North City Corporation

Visit to a Flood, water logging, heat stress, and garbage management site by CBA10 participants.

Day-2: 23 April 2016 (Saturday)

Time	Activity
07:30-08:00	Breakfast at Hotel in Baridhara, Dhaka
08:30	Depart from hotel to CPD, Mohammadpur, Dhaka city by three mini buses (12km~1h driving)
09:30	Arrive at Community Participation and Development (CPD)
9.45-10.30	Introduction of CPD, Presentation and discussion.
10:30-1:00	Visit Child and Youth club and discussion with the children of Child and Youth club on the knowledge of Climate change adaptation, Climate Vulnerability and Capacity Assessment process (CVCA), Visit a advocacy initiative (Canal Cleaning), Formation of team Details..

Team 1 – Facilitation By Mr. Jaman, Forhad Hossain, Mrs. Mary Akhter


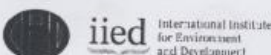



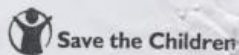
A. Visit of “Eco friendly Child and Youth club” Nobodoy : 5 km form office,.

- Discussion on their learning.
- Discussion with Children and their caregivers. Climate Vulnerability and capacity Assessment (CVCA) - How they conduct, tools, approach towards policy makers.
- Achievement of the child & Youth Club.
- Visit children’s house.
- Observe adaptation tools at slum: Solar Bottle Bulb
- Transparent TI Sheet for Lighting.
- Visit an Advocacy initiative of Children: Canal Cleaning by Government.

B. Visit of “Dhaka Uddayan Primary school”: one km from Child & Youth club: very Close to River Buriganga, Where children from low income earner (wage earner) family usually resides.

- Observe a school awareness raising session
- Discussion with Head teacher and their faculty. Dedicated room for session.
- Oxygen Bank.
- Waste box
- Joint achievement: identified by children and School Management committee: Green clean and safe campus...
- Visit an Advocacy initiative of Children: Canal Cleaning by Government.

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**10th International Conference on Community Based Adaptation to Climate Change
22nd to 24th April 2016 in Dhaka, Bangladesh**

Field Site 1: Dhaka North City Corporation

Visit to a Flood, water logging, heat stress, and garbage management site by CBA10 participants.

Team 2 –Facilitated by Mrs. Afsana , Abdur Rahim, Sakhawat Hossain

A. Visit of “Green Leaf Child and Youth club”: 5 km form office,

- Discussion on their learning
- Discussion with Children and their caregivers. Climate Vulnerability and capacity Assessment (CVCA) - How they conduct, tools towards policy makers.
- Some achievement of the child & Youth Club.
- Visit children’s house.

B. Visit of “Bengali Medium High school”: one km from Child & Youth club:

- Observe a school awareness raising session
- Oxygen Bank.
- Solar Bottle Bulb
- Oxygen corner
- Wall Plant.
- Discussion with Headmaster and their facility by invitation
- Joint achievement: identified by children and School Management committee: Green clean and safe campus...Wash Room....

Team 1 and Team 2: Meet together at the office of the Ward commissioner

- Visit of the office of Ward Commissioner (Female) for ward no 29, 30, 32
- Discussion with Ward Commissioner
- Oxygen corner
- Visit Roof Top Garden.

13:30-14:30 Lunch at CDP Office, Adabor, Mohmmadpur


14:30-15:00 Discussion with CDP and Save the Children staff on their Child center DRR and CCA activities

15:30-17:00 Travel and visit Islamic Relief supported Rooftop Garden activities at Sher-e Bangla Agriculture University, Dhaka

17:00 Depart to Hotel in Baridhara, Dhaka from field

18:00-18:15 Arrive at Hotel in Baridhara, Dhaka and take rest

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**10th International Conference on Community Based Adaptation to Climate Change
22nd to 24th April 2016 in Dhaka, Bangladesh**

Field Site 1: Dhaka North City Corporation

Visit to a Flood, water logging, heat stress, and garbage management site by CBA10 participants.

Field accommodation: *Overnight at Hotel Blossom or at Hotel Summer Palace or at La Villa Western Hotel in Baridhara R/A, Dhaka*

Field Visit Coordinator (all sites): Mr. Sarder Shafiqul Alam; Cell: +8801711840441

Local hosts focal person: Mr. - Mobile no.

Representatives from Local Host Organization:

1. Abdur Rahim, Save the Children; Cell: 01716990315
2. Forhad Hossain, Save the Children; Cell: 01732931790
3. Munirul Islam, Islamic Relief Bangladesh; Cell: 01777773864
4. Abdullah Al Raihan, Islamic Relief Bangladesh; Cell: 01777773853
5. Mahfuzul Alam, BCAS Cell:01718358916


Transport:

Three Mini Buss with 12 seats from Hotel in Baridhara to Mohammadpur and Sher-e-Bangla Agriculture University area and back to hotel by the same bus.

Driver:

1. Mr.	- Coach no.	- Mobile no.
2. Mr.	- Coach no.	- Mobile no.
3. Mr.	- Coach no.	- Mobile no.

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**10th International Conference on Community Based Adaptation to Climate Change
22nd to 24th April 2016 in Dhaka, Bangladesh**

Field Site 1: Dhaka North City Corporation

Visit to a Flood, water logging, heat stress, and garbage management site by CBA10 participants.

Day-3: 24 April (Sunday)

Time	Activity
07:30-08:00	Breakfast at Hotel in Baridhara, Dhaka
08:30	Depart from hotel to Nabodoy Housing area, Mohammadpur Ward no 33, Dhaka city by three mini buses (12km~1h driving)
09:30	Arrive at Community Participation and Development (CPD)
9:45-10:30	Introduction of CPD, Presentation and discussion
10:30-1:00	Visit Child and Youth club and discussion with the children of Child and Youth club on the knowledge of Climate change adaptation, Climate Vulnerability and Capacity Assessment process (CVCA), Visit a advocacy initiative (Canal Cleaning), Formation of team Details..

Team I – Facilitation By Mr. Jaman, Forhad Hossain, Mrs. Mary Akhter


C. Visit of “Eco friendly Child and Youth club” Nobodoy : 5 km form office.

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- Some achievement of the child & Youth Club.
- Visit children’s house.
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- Observe a school awareness raising session
- Discussion with Headmaster and their faculty. Dedicated room for session.
- Oxygen Bank.
- Waste box
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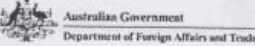
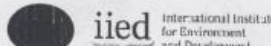


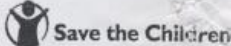
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15:30-17:00 Travel and visit Islamic Relief supported Rooftop Garden activities at Sher-e Bangla Agriculture University, Dhaka

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18:00-18:15 Arrive at Hotel in Baridhara, Dhaka and take rest

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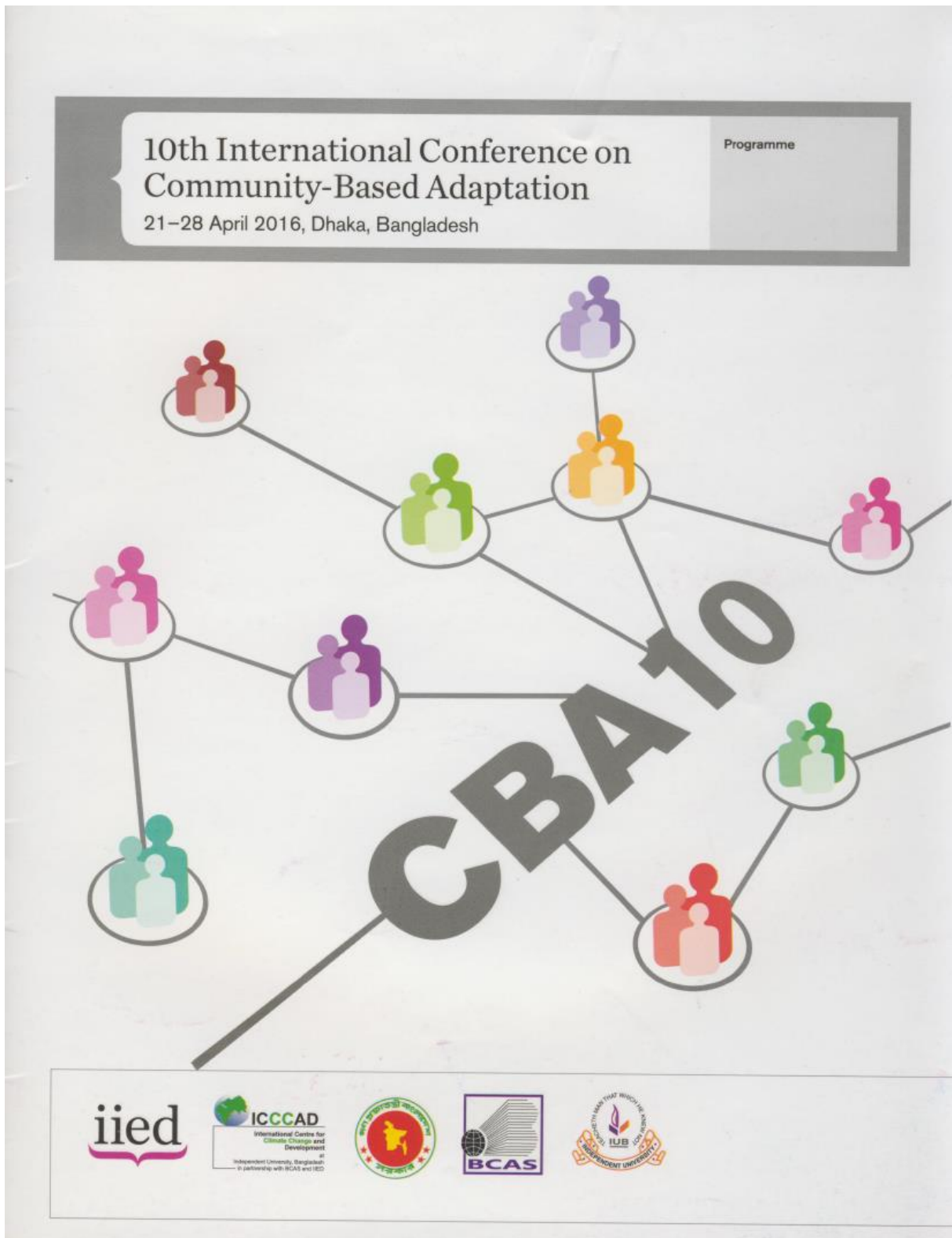
Driver:

1. Mr.	- Coach no.	- Mobile no.
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8.3 Annex 3 – Conference Program

This documentation depicts only a brief overview over the conference program. The in-depth conference proceedings can be found under <http://pubs.iied.org/G04061.html>.



Programme overview

		Day 1, Monday 25 April, 2016	Day 2, Tuesday 26 April, 2016	Day 3, Wednesday 27 April, 2016	Day 4, Thursday 28 April, 2016
Morning	08:00	Check-in with welcome tea and coffee			
	09:00	Inaugural plenary session 1: conference opening and welcome speeches	Plenary session 5: micro small and medium enterprises, and resilience	Plenary session 9: urban resilience through ecosystem-based adaptation	Plenary session 13: ten years of CBA conferences — reflections and next steps
Afternoon	10:00	Tea break	Tea break	Tea break	Tea break
	11:00	Plenary session 2: building community participation in urban CBA	Parallel 'out-of-the-box' sessions 6A, 6B and 6C	Parallel 'out-of-the-box' sessions 10A, 10B and 10C	Plenary session 14: Conference Closing Session
	12:00	Lunch	Lunch	Lunch	Afternoon snacks and networking
	13:00	Parallel 'out-of-the-box' sessions 3A, 3B and 3C	Parallel sessions 7A, 7B and 7C	Parallel 'out-of-the-box' sessions 11A, 11B and 11C	"I wish I had died..." What to do about cyclone disasters in Bangladesh
	14:00	Tea break	Tea break	Tea break	
	15:00	Plenary 'out-of-the-box' session 4: learning from failure	Plenary session 8: poster market place	Plenary session 12: poster market place	
	16:00	CBA 10th anniversary welcome and networking evening		CBA10 closing dinner hosted by BBC Media Action	
	17:00				
	18:00				
	19:00				
Evening	20:00				
	21:00				

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10TH INTERNATIONAL CONFERENCE ON COMMUNITY-BASED ADAPTATION

10th International Conference on Community- Based Adaptation

Enhancing urban community resilience

Dhaka, Bangladesh

21–28 April, 2016

Programme:

25 April	08.00–09.00	Check-in with welcome tea and coffee
	09.00–10.30	Inaugural plenary session 1: conference opening and welcome speeches Room: Auditorium Chair: Saleemul Huq, IIED/ICCCAD <ul style="list-style-type: none">• Atiq Rahman, BCAS• M. Omar Rahman, Vice Chancellor, IUB• Ruby Haddad, Homeless People's Federation of the Philippines• Andrew Norton, Director, IIED• Mary Robinson, Mary Robinson Foundation — Climate Justice (video address)• Barney Dickson, UNEP• Kamal Uddin Ahmed, Hon'ble Secretary, Ministry of Environment and Forests, Government of The People's Republic Bangladesh• Abdullah Al Islam Jakob, Hon'ble Deputy Minister, Ministry of Environment and Forests, Government of The People's Republic of Bangladesh
	10.30–11.15	Tea break: courtyard/lobby
	11.15–12.45	Plenary session 2: building community participation in urban CBA Room: Multi-Purpose Hall Facilitator: Diane Archer, IIED <p>This session will be an opportunity for the panellists to emphasise the important role that community members can and do play in disaster risk reduction and climate change adaptation — with a particular focus on participation in the urban context. Speakers will talk about the experiences of urban communities in responding to a changing climate, the role of adaptive capacity to facilitate participation, and how adaptation tools and rural approaches to participatory community-based adaptation can be applied in urban contexts.</p> <ul style="list-style-type: none">• Janeth D. Bascon, Homeless People's Federation of the Philippines• Vositha Wijenayake, CANSA/Southern Voices on Adaptation• Fiona Percy, CARE International• Chime Paden Wangdi, Tarayana Foundation, Bhutan
	12.45–14.15	Lunch: IUB Food Court

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14.15–15.45

Parallel 'out-of-the-box' session 3A: building adaptive capacity: large businesses as enablers, actors and influencers of community resilience**Room: Multi-purpose Hall****Facilitator: Samantha Harris, BSR**

As a result of climate change, large businesses are already witnessing disrupted supply chains, reduced availability of natural resources, damage to infrastructure and utilities, disrupted transport and logistics routes, heightened price and market volatility, and unpredictable impacts on the workforce and consumers. Some economists estimate the effects of climate change will cost as much as US\$4 trillion by 2030. Climate change is now recognised as the number one business risk, according to the World Economic Forum's 2016 Global Risk Assessment Report. Nearly 75% of suppliers in a recent survey stated that climate change presents risks that could significantly impact their business operations, revenue or expenditure but only 50% are currently managing this climate risk. As an innovator, the private sector has the ability to act, enable and influence adaptive capacity in their own operations and broader community resilience in the face of climate change. While some large businesses are moving forward, others lack leadership on building climate resilience. This session will discuss how the private sector can address resilience in its own operations, supply chain and the broader community.

- Keynote speaker: Munawar Misbah Moin, Rahimafrooz Renewable Energy Limited
- Panel discussion
 - Jacob Park, Green Mountain College
 - Yousef Abu, GIZ Bangladesh office
- Audience group work to identify the various areas in which the private sector can act, enable and influence on building adaptive capacity in their own operations and broader societal resilience.
- Questions to and discussion with panellists

Parallel session 3B: disaster and risk reduction**Room: Faculty Dining Hall****Facilitator: Stu Solomon, GNDR**

When CBA first emerged as a new field of engagement there was considerable optimism that the disaster risk reduction (DRR) and climate adaptation (CCA) sectors would become natural allies and eventually blend into each other. Despite their differences, both fields focus on vulnerability reduction (or resilience building) as their common goal. Despite some worthy efforts to bridge the gaps, however, both fields seem to have gone their separate ways. The DRR sector still struggles to incorporate climate concerns into its practice and strategies, and the CCA community has developed its own approaches rather than building upon existing DRR learning. Communities perceive and address climate change, disasters and poverty issues in a holistic way and do not approach the threats they face through a fragmented siloed approach. Urban resilience forms an excellent nexus for managing existing and future risk but it needs closer strategic engagement between the DRR and CCA fields at the local level. Acknowledging this and responding to the need for stronger policy cohesion identified by the post-2015 Global Frameworks offers a golden opportunity for renewed collaboration. This session will profile the experience of CBA and DRR actors, especially in the urban context. Panellists will then share thoughts on linking the sectors going forward.

- Terry Cannon, IDS
- Thinh Nguyen Anh, ADRA Vietnam
- Lars Bernd, UNICEF
- Shakil Akther, URP at BUET (TBC)
- Brooke Ackerly, Vanderbilt (TBC)

Parallel session 3C: local government and urban CBA**Room: Gallery Room 2****Facilitators: David Satterthwaite, IIED, Luis Artur, University Eduardo Mondlane**

CBA in urban areas faces many constraints. Perhaps the biggest is that local government regards communities living in informal settlements as illegal. These sites are also at high risk from extreme weather and most lack risk-reducing infrastructure. Then there are all the urban rules and regulations for housing and land-use management that push the cost of renting or building formal housing above what low-income groups can afford. Most cities also have large backlogs in risk-reducing infrastructure (such as piped water, sewers and drains, paved roads and electricity) that cannot be addressed by community action alone. But urban areas provide CBA with opportunities, especially where local government is supportive and community groups are organised. Urban areas also provide agglomeration economies for the infrastructure and services that are needed for adaptation. There are now many examples of slum/shack dweller federations that work in partnership with local governments. This session will examine the powerful influence on CBA in urban contexts from: 1) what local government does (eg in investment in risk reducing infrastructure), 2) what it allows (eg dweller and community led innovations in informal settlements), 3) what it encourages and supports, 4) what it prevents, and 5) what community organisations do and how they are organised.

- Luis Buchir, Ministry of Land, Environment and Rural Development, Mozambique
- Shakti Singh Choudhury, Mayor, Gangtok Municipal Corporation, India
- Binita Maharjan, Disaster Management Committee, ward 9, Kirtipur Municipality, Nepal
- Ek Raj Sigdel, Local Governance and Community Development Program, Nepal
- Diane Archer, IIED

15.45–16.30 Tea break: courtyard/lobby

16.30–18.00 **Plenary 'out-of-the-box' session 4: learning from failure****Room: Multi-Purpose Hall****Facilitators: Bettina Koelle and Pablo Suarez, Red Cross/Red Crescent Climate Centre**

Sometimes we learn more from our failures than from our successes. The objective of this highly interactive session is to openly and anonymously share some common failures and stimulate a reflection on what we can learn from them. Placing the session at the beginning of the conference will allow participants to share lessons from failure more openly in the coming days and sessions.

18.00

CBA 10th anniversary welcome and networking evening

Food and drinks reception at IUB to celebrate the 10th anniversary of CBA, starting with a local 'Pot gan' performance in the Auditorium — *The Lived Experience of Climate Change: The Story of One Piece of Land in Dhaka* — by Joanne Jordan, University of Manchester, with the Department of Theatre and Performance Studies, University of Dhaka.

26 April 9.00–10.30

Plenary session 5: micro, small and medium enterprises, and resilience**Room: Multi-Purpose Hall****Facilitators: Rohini Kohini, UNDP, Janice Ian Manlutac, Oxfam GB Asia**

Most of the population in the developing world relies on micro and small businesses for their livelihoods, so it is imperative that this segment of the economy becomes more resilient to future climate impacts. At the same time, these businesses are well positioned to develop and sell products and services that strengthen the resilience of vulnerable communities. This interactive session will highlight how micro and small businesses can be engaged in and

contribute to climate resilience both for ecosystems and people. It will alternate between case studies and small group discussions illustrating how a focus on micro and small businesses can lead to strengthened community resilience, potential areas for engagement and what not to do.

- Bella Tonkonogy, UNDP
- Bal Krishna Jamarkattel, CARE Nepal/Hariyo Ban Program
- Shafiqul Islam, CEO and Managing Director, SME Foundation, Bangladesh (TBC)
- Charles Nyandiga, UNDP GEF Small Grants Programme
- Ronald Mendoza, Ateneo School of Government

10.30–11.15 Tea break: courtyard/lobby

11.15–12.45 **Parallel 'out-of-the-box' session 6A: participatory innovations to manage urban climate risks: learning and dialogue through serious gameplay**

Room: Multi-Purpose Hall

Facilitators: Pablo Suarez and Bettina Koelle, Red Cross/Red Crescent Climate Centre

Climate risks entail specific challenges in urban settings. How do we help people at risk, local and national governments, civil society, researchers, donors and other stakeholders to understand and address the complexities of CBA in cities and towns? In this intensely interactive session, participants will explore some of the new approaches developed by the Red Cross Red Crescent Climate Centre and partners to mobilise knowledge and help turn it into action, with an emphasis on processes aimed at developing shared understanding of information, decisions and potential consequences.

Parallel session 6B: adaptation technologies: from principles and innovations to institutionalisation

Room: Faculty Dining Hall

Facilitator: Parimita Mohanty, CTCN

CBA offers a proven effective approach to selecting, designing, piloting and scaling up climate change adaptation technologies. However, adaptation technology efforts that attempt to be community-based often fail to fully embrace key CBA principles, and thus miss opportunities to maximise adaptation gains. In other cases, while often grounded in local community priorities and leadership, CBA efforts can lack a strong link to national climate change strategies and plans, disaster risk reduction and other relevant sustainable development plans and policies. These disconnects can be minimised, thereby improving adaptation gains, by applying one or more of these strategies: (i) promoting innovation in adaptation technologies to enhance resilience; (ii) institutionalizing these technologies for large-scale deployment; (iii) proactively analysing their consistency with CBA principles that are proven to provide enduring results. This session will describe examples of good practices in innovative CBA technologies addressing specific vulnerabilities, as well as institutional strategies being adopted for scaling-up adaptation technology solutions. These examples and open discussions with participants will provide insights for designing and deploying CBA technologies.

- Parimita Mohanty, CTCN: Overview of adaptation technologies and the importance of community-based approaches
- Gaudensia Aomo, Kenya Industrial Research and Development Institute
- Aditya Bahadur, ODI
- Madan Pariyar, iDE Nepal
- Abdur Rob, Practical Action Bangladesh
- Discussion using a fish-bowl approach
- Summary and opportunities

Parallel session 6C: urban capacity building**Room: Gallery Room 2****Facilitators: Lynne Carter, fhi 360/USAID, Denia Syam, Asian Cities Climate Change Resilience Network (ACCCRN)/Mercy Corps Indonesia**

Urban capacity building like other capacity building can involve building both human capacity as well as institutional capacity. It might involve efforts that increase personal or institutional knowledge, or result in increased understanding or improved processes. It might include how to share that new knowledge through training, networking and other specific activities. Goals may include improving urban functioning for increased resilience; increased capacity to offer services or support to the population; efficiency measured in many ways; increasing knowledge sharing; and creating new opportunities. Considerations for effective capacity building efforts might include: aspects of cultural appropriateness, a focus on issues of local/regional concern, delivery in understandable language and approaches, and consideration of gender and social acceptability. All of these aspects contribute to the complexity of developing and carrying out effective capacity building efforts. We can often learn from one another and build on each other's successes without starting entirely from ground zero. This session will share lessons and experiences from successful and less successful capacity building efforts to enlighten and enliven our next forays into capacity building in any of its definitions and specific areas of focus.

- Charles Tonui, ACTS, Kenya
- Kimberly Junmookda, Plan International
- Jitu Kumar, The Evangelical Fellowship of India Commission On Relief (EFICOR)
- Istiak Ahmed, ICCCAD
- A M Nasir Uddin, ActionAid Bangladesh

12.45–14.15 Lunch: IUB Food Court

Parallel session 7A: financing urban CBA**Room: Multi-Purpose Hall****Facilitator: Lisa Junghans, Germanwatch**

The past years have seen a growing body of international climate finance that increasingly reflects the trend towards transformative change. For cities, however, doors often remain closed. In an interactive fashion, this session will delve into the challenges that cities face whilst also exploring how they can become pioneers of change with innovative financing tools.

- Sarah Colenbrander, IIED
- Raju Chhetri, Prakriti Resources Centre (PRC)
- George Weyasu, Dedicated Grant Mechanism Indonesia

Parallel 'out-of-the-box' session 7B: population dynamics, urban health and urban resilience**Room: Faculty Dining Hall****Facilitator: A. Tianna Scozzaro and Neha Mathew, Sierra Club**

Population dynamics are important for both the challenges and solutions associated with climate change. Rapid population growth, migration, urbanisation and other demographic trends impact people's vulnerability to the negative consequences of climate change. These trends also affect patterns of energy use, health outcomes and greenhouse gas emissions. This training session aims to build a global team of experts on linking population dynamics and urban climate change adaptation. Participants will learn to: describe key ways that population dynamics, urban health and climate resilience interact; explain why it's important to link population dynamics, health and urban climate change; and identify strategies for incorporating population dynamics and urban climate change interactions into their work planning.

		<p>Parallel session 7C: CBA short films Room: Gallery Room 2 Facilitators: Meraz Mostafa, ICCCAD and Ali Hendessi CBA participants share and answer questions about the short films presented in this session.</p>
	15.45–16.30	Tea break: courtyard/lobby
	16.30–18.00	<p>Plenary session 8: poster market place Room: Multi-Purpose Hall Facilitator: Hannah Reid, IIED and Arivudai Nambi, WRI Following a keynote speech by David Satterthwaite, IIED, participants with posters will have 5–10 minutes to talk about their posters and answer questions before a bell will ring and CBA participants will move on to the next poster. This will be followed by a chance to circulate freely amongst posters and ask questions to those presenting them.</p>
27 April	9.00–10.30	<p>Plenary session 9: integration and effectiveness of ecosystem based adaptation: learning from experiences Room: Multi-Purpose Hall Facilitators: Mozaharul Alam, UNEP, and Hannah Reid, IIED Ecosystem-based approaches to adaptation (EbA) involve the use of biodiversity and ecosystem services to help people adapt to the adverse effects of climate change. EbA complements CBA but has a strong focus on natural solutions. It is important in urban as well as rural areas, for example in the context of providing a regular supply of clean water to cities and towns, and protecting them against disaster and slow-onset events such as floods and sea-level rise. The importance of EbA has been recognised at the international climate change negotiations and by the UN Environmental Assembly. Project experience to date also suggests that it holds great potential to increase local resilience and adaptive capacities, particularly for the most vulnerable. EbA design and implementation has gained momentum, and learning is emerging on its effectiveness and integration at different levels. This includes learning on: the effectiveness of interventions to enhance the adaptive capacity of communities; the resilience of ecosystems and ecosystem services provision; the spatial scale at which interventions are more effective and deliver better results; and the challenges of integration at different levels. EbA is, however, poorly addressed in national policy processes and planning. Adaptation planners and policymakers at all levels need to understand how EbA can replace or complement hard infrastructural approaches to adaptation and apply it accordingly. This session will share examples of EbA and explore how to integrate it into policy and planning better.</p> <ul style="list-style-type: none"> • Gabriel Kulwaum, TNC • Ngoc Huy Nguyen, Institute for Environmental and Social Transition, Vietnam • Madan Koirala, Tribhuban University, Nepal • Gauri Shanker Timala, Mountain EbA project, Nepal • Vijaya Singh, UNDP Nepal
	10.30–11.15	Tea break: courtyard/lobby
	11.15–12.45-	<p>Parallel 'out-of-the-box' session 10A: reach millions — build your own infotainment show Room: Multi-Purpose Hall Facilitator: Rachael Canter and Arif Al Mamun, BBC Media Action, Bangladesh As participants enter there will be a short display explaining what we mean by 'infotainment' and our Theory of Change. Participants will walk around a series of different 'stations' following the journey of making infotainment programmes, like BBC Media Action's Amrai Pari in Bangladesh. At each station, participants will get the opportunity to interact with displays, talk to members of the Media Action team and even have a go at filming something.</p>

Parallel 'out-of-the-box' session 10B: presidential debate on 'making urban resilience a reality'

Room: Faculty Dining Hall

Facilitators: Aditya Bahadur, ODI and Melissa Bungcaras, ActionAid

It is election season in the US and people all over the world are following the debates with enthusiasm. In our own version of the presidential debate, the candidates are going to answer three key guiding questions on assessing resilience put to them by CNN anchors (the session facilitators). We will follow the same format as the US debates, where the anchors will introduce key issues for discussion and then introduce each candidate. The session will end with the anchors making closing remarks and the audience using their mobile phones to vote for their favourite candidate with results appearing on the screen there and then.

- Introduction to style and format of the Presidential Debate (Melissa Bungcaras)
- Overview of landscape of resilience measurement approaches (Aditya Bahadur)
- Guiding questions and responses from candidates
 - Lubaina Rangwala, World Resources Institute, India
 - Nimish Jha, National Institute of Urban Affairs, India
 - Kara Reeve, RTI International
 - Bedoshruiti Sadhukhan, ICLEI Local Governments for Sustainability South Asia
- Audience votes for their favourite candidate

Parallel session 10C: supporting local organisations

Room: Gallery Room 2

Facilitator: Sarah Colenbrander, IIED

All poverty reduction and climate adaptation activities are ultimately local. Many of the barriers to development and resilience are also local: patterns of land ownership, exclusionary norms and regulations, and anti-poor policymakers. The foundations to development and resilience are also local: healthcare, water and sanitation, secure tenure and getting on to electoral registers. Local organisations therefore have a major role to play in helping low-income and other vulnerable groups secure basic rights and engage with government. Yet local civil society organisations currently receive only 1% of international development assistance. This session addresses two key questions: (1) how does local civil society contribute to urban resilience? And (2) how can donors effectively support them?

- Dharmistha Chauhan, Mahila Housing SEWA Trust
- Saurav Sainju, Lumanti Support Group for Shelter, Nepal
- Emily Pugin, Department of Foreign Affairs and Trade, Australia
- Adrian Fitzgerald, Irish Aid
- David Satterthwaite, IIED

12.45–14.15 Lunch: IUB Food Court

14.15–15.45 Parallel session 11A: gender responsive climate change adaptation: the urban context

Room: Multi-purpose Hall

Facilitators: Christine Hunter, UN Women, and Atiq Rahman, BCAS

Climate change is not gender neutral. Men and women are affected differently by climatic impacts. Understanding about people's vulnerability in rural areas has grown over the last 30 years, and several studies show that women and girls are disproportionately affected. But our understanding of climatic effects on women and girls in urban settings is more limited. Social networks and community relationships are very different in urban areas. Climatic challenges are also different: problems relating to salinity, sea-level rise, water logging and drinking water that characterise rural areas are less prevalent. Public health concerns, such as vector-borne diseases and heatwaves, are more relevant.

What do these challenges mean for women and girls? Without a gender-inclusive approach to analysing the problem we might inadvertently increase the vulnerabilities of women and girls to climatic shocks, as well as perpetuate or exacerbate gender inequality. More than half of the global population lives in urban areas and it's therefore extremely important to understand these issues. Women, men, girls and boys also possess different and unique capacities, which should be understood, harnessed and built upon when designing and implementing adaptation interventions. Discussion in this session will improve understanding about the challenges that an urban setting provides for gender-sensitive adaptation interventions, with examples of how women and girls can be effectively mobilised as agents for urban adaptation.

- Melissa Bungcaras, ActionAid
- Prachi Rao, Women's Environment and Development Organization
- Huraera Jabeen, BRAC University
- Nazma Begum, Golap Nari GonoGobeshona Dal (Women's People Research Team) (TBC)

Parallel session 11B: climate services: generating climate information for effective decision making

Room: Faculty Dining Hall

Facilitator: Bettina Koelle, Red Cross/Red Crescent Climate Centre, Fiona Percy, CARE International

This session will explore the opportunities and challenges to effectively integrating climate information in decision-making. It will share some short stories as examples, and participants will experience some challenges first-hand through experiential learning activities.

- Sheri Lim, CARE International
- Mousumi Pervin, Practical Action, Bangladesh
- Sarder Alam, ICCCAD

Parallel session 11C: CBA short films

Room: Gallery Room 2

Facilitators: Meraz Mostafa, ICCCAD and Ali Hendessi

CBA participants share and answer questions about the short films presented in this session.

15.45–16.30 Tea break: courtyard/lobby

16.30–18.00 **Plenary session 12: poster market place**

Room: Multi-Purpose Hall

Facilitator: Hannah Reid, IIED and Arivudai Nambi, WRI

Those with posters will have 5–10 minutes to talk about their posters and answer questions before a bell will ring and CBA participants will move on to the next poster. This will be followed by a chance to circulate freely amongst posters and ask questions to those presenting them. The prize for the best poster will also be awarded in this session.

19:00–21:00 **CBA10 closing dinner hosted by BBC Media Action**

Venue: Hotel Sarina

28 April 9.00–11.00 Plenary session 13: ten years of CBA conferences — reflections and next steps

Room: Multi-Purpose Hall

Facilitator: Saleemul Huq, IIED/ICCCAD

This session will review the last ten conferences (held over 12 years) with experiences and personal reflections on the outcomes of CBA conferences over the years shared by long-standing conference participants. Terry Cannon will then challenge us on whether the concept of CBA is still fit for purpose and whether or not there is a need to continue the conference series beyond this — the tenth one.

- Pablo Suarez, Red Cross/Red Crescent Climate Centre

10TH INTERNATIONAL CONFERENCE ON COMMUNITY-BASED ADAPTATION

	<ul style="list-style-type: none">• Arivudai Nambi, WRI• Terry Cannon, IDS
11.00–11.30	Tea break: courtyard/lobby
11.30–13.00	Plenary session 14: conference closing session Room: Auditorium Chair: Atiq Rahman, BCAS <ul style="list-style-type: none">• Saleemul Huq, ICCCAD• Youth conference representative• Christiana Figueres, Executive Secretary, UNFCCC (video address)• Raisul Alam Mondal, Director General, Department of Environment (DOE), Bangladesh• Paul Desanker, UNFCCC• Shamsul Alam, Member, GED, Planning Commission• Saber Hossain Chowdhury, MP and President, Inter-Parliamentary Union• Rashed Khan Menon, The Hon'ble Minister, Ministry of Civil Aviation and Tourism
13.00–14.00	Afternoon snacks and networking: courtyard/lobby
Afternoon	"I wish I had died..." What to do about cyclone disasters in Bangladesh" Room: Faculty Dining Hall Open-invite lunch meeting hosted by Terry Cannon, IDS.
