The issue of nuclear power before and after Fukushima within the Christian community in Germany

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The objective of this talk is to provide an overview of the German experience of dealing with nuclear power. Special emphasis will be given to the role and position taken by the Christian community.

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PART ONE: Nuclear power in Germany and the position of the Christian Community

History of the anti-nuclear movement in Germany

The topic of nuclear power is without any doubt one of the most controversial long-term issues in German politics. In 1962 the first nuclear power plant (NPP) in Germany went onstream, the last one, bringing the total number of power plants in Germany to 19, in 1989. Combined they generate around 20% of the recent domestic demand. The motivation of

using nuclear power didn't originally come from energy suppliers but from politics. However, energy suppliers in Germany, and in particular the "Big Four" EON, RWE and EnBW and Vattenfall, have profited greatly from this quasi-monopolistic situation.

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The first objections against the use of nuclear power were raised in the early 1970s. In 1972 the federal state of Baden-Württemberg in southwest Germany (home state to the Protestant Church of Baden) started the planning of a NPP in Whyl, a small village of 3000 inhabitants located in a rural setting of vineyards and agriculture. It was the first time that Germany was confronted with a passionate civilian resistance around a nucleus of 27 Whyl citizens. The movement grew and gathered momentum over the years, culminating in a month-long occupation of the planned construction site by housewives, farmers, middle-class citizens and academics, who drew additional supporters from nearby regions. The "Whyl Forest Community College" was established near the construction site, satisfying the need for a center for independent and unbiased scientific research and the need of encouragement within the movement. The occupation was terminated by a police operation using physical force. This case of police brutality only served to strengthen the force of the resistance and produced strong support with many Germans and even the print media. The result was the first time ever demonstration of several ten thousand citizens against the use of nuclear power in Whyl. In the early 1980s, the prime minister of Baden-Württemberg had to acknowledge that, after ten years, the long-term resistance was unwavering and the Whyl nuclear power plant was never build.

Whyl became the nucleus of the German anti-nuclear movement, gradually forming not among "fundamentalist extremists" but in the heart of society. Solidarity grew between the members of various regional movements which supported each other. A nationwide network gradually formed throughout Germany. There are further examples of regional movements that gained national fame: Gorleben, as site for the final disposal for nuclear waste where protests are ongoing even today; Wackersdorf, a planned site for a nuclear fuel reprocessing plant (not built yet); and the resistance against the Brokdorf nuclear power plant, which went online in 1986.

The Role of the Christian churches in Germany (Part I): Whyl and Chernobyl

Until the 1960s both protestant and catholic Christians more or less supported the use of nuclear power. In the early 1970s, however, the Christian denominations became involved in the emerging anti-nuclear movement. This change of position first occurred in local parishes, which functioned as discussion forums and grass-root think tanks.

This brings us back to the anti-nuclear movement in Whyl: the first meetings of concerned citizens took place in the rooms of the evangelic congregation in Whyl. In May 1974 the regional evangelical synod adopted a memorandum urging the state government to halt the

start of construction until all security issues have been resolved. Five month later 29 pastors wrote an open letter to the government, asking them again to cease construction due to serious safety concerns identified by independent scientists. Once the construction site had occupied by protesters, the prime minister referred to the occupiers as an "extremist group". The pastors responded to this by writing the following telegram:

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"To Prime Minister Dr. Hans Filbinger: The undersigning protestant pastors and staff of the district of Emmendingen cannot emphasize strongly enough, that the resistance against the start of construction of the NPP in Whyl is supported by the majority of parish members of the region around Whyl. We strongly protest against the misrepresentation that the occupation of the construction site is controlled by national extremists. It is out of a sense of responsibility and concern for our environment that the citizens of the district are trying to prevent the creation of irreversible facts, as would be the case once construction begins [...]. The protection of both the landscape and the health of the local population are better means to serve the interest of the general public than the increase of energy production."

It was pastors who tried to mediate between the police force and occupiers in order to prevent riots. They urged both sites to not use violence. In the end it was a private consultation between Protestant Bishop Heidland and Prime Minister Filbinger that was a major keystone in the effort to abandon Whyl as site of a nuclear power plant.

With the disaster of Chernobyl in 1986 the use of nuclear power met with widespread disapproval in all regional evangelic churches in Germany. The synods as their highest decision boards passed numerous decrees against nuclear power. Unlike the early protests of the 1970s, these decrees were in full agreement with public opinion. Nevertheless, it was very important for Christian communities in Germany to take a tough stance in clear support of those who were against nuclear power. Once this step had been taken there was no option of going back.

From protest to "mainstream" — Political parties and independent science

Ten years after Whyl the environmentalist Green Party was founded in Germany in 1980, gathering many protagonists from the anti-nuclear and peace movements. Another ten years later the majority of German citizens were against the use of nuclear power and in 2000 the social-ecological ("red-green") German coalition government declared to phase out nuclear power in stages until 2023. This decision was linked to a Renewable Energy Law which went into effect in order to increase the "green power" percentage within the total energy mix. This was to be realized by subsidising the use of photovoltaic energy, wind energy as well as other renewable sources and by granting the privilege of feeding into the power grid. It was this decision, combined with a liberalisation of the energy market that led to a hitherto unknown competition between energy suppliers. In fact, it was nothing less than the

beginning of a smart and soft transformation process of energy generation. Germany's society had arrived at a consensus and in its wake protests against nuclear power and the number of demonstrations against nuclear plants declined rapidly. Christian churches supported this transformation unconditionally.

However, in 2010 the conservative-liberal ("black-yellow") coalition government decided to "exit the nuclear exit" by prolonging the lifetime of NPPs. Consequently protests rapidly increased again up. On 18 September 2010, more than 100.000 protesters surrounded Chancellor Angela Merkel's office.

The years of controversial political programmes witnessed a parallel development: independent research institutes evolved, focussing on nuclear power. Among the first were the Protestant Institute for Interdisciplinary Research ("FEST") in Heidelberg and the Eco-Institute in Freiburg. Both were founded as a direct result of the protests in Whyl.

Bishop Heidland of the Protestant Church of Baden (who also oversees the congregation of Whyl) commissioned the FEST to not only evaluate safety risks of nuclear power plants, but also alternatives for generating electricity. It was the first time that those issues should be evaluated in a large-scale scientific project – and the Church acted as both the contracting party and the contractor! Even today, reading the FEST report written many years ago, one finds that it is still up-to-date, identifying the issues of remaining risks, the eternity issue of nuclear waste, the energy suppliers' lack of liability in case of an accident and the proliferation of material for the use in nuclear weapons. Even then, renewable forms of energy and energy efficiency were named as alternative pathways. This report is characterized by a completely new quality and an independent holistic approach at an advanced scientific level. Just a few years later a number of FEST scientists co-founded the Eco-Institute, which enjoys an excellent reputation throughout Europe, working for many governments.

Fukushima

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The disaster of Fukushima in 2011 brought about a radical change which no-one had expected to ever happen in Germany: Chancellor Merkel considered the dogma of safe nuclear power no longer valid. If a highly industrialised nation like Japan was not able to safely handle nuclear power, then it could not be declared safe anywhere else, either. In other words, nuclear technology is too complex to be managed safely. After Fukushima, even the supporters of nuclear energy within the political parties and energy suppliers realised that their arguments could no longer be upheld. Only three days after the disaster, Merkel imposed a moratorium on nuclear power. The eight oldest NPPs were temporarily shut down and stress tests of all NPPs were conducted. On 11 March, Merkel called a new "Council of Ethics Concerning the Safe Use of Nuclear Power" to advise the government. The council

consisted of 17 members to represent the industry, politics, NGOs and Christian churches. Bishop Fischer of the Protestant Church of Baden and Bishop Marx of the Catholic Church were two of the 17 members. On 26 March, 250,000 people in Berlin, Cologne, Hamburg and Munich protested against nuclear energy. On 27 March, after more than fifty years of leadership of the conservative parties, the environmentalist Green Party won a landslide victory in the state election of Baden-Württemberg, where Whyl is located. On 28 May, the commission advised a nuclear phase-out within ten years. On 06 June, Chancellor Angela Merkel's coalition government announced a phase-out of Germany's nuclear industry by 2022.

It cannot be emphasized enough how substantial the effects of Fukushima have been in Germany. One can only speculate about the real reasons for Chancellor Merkel's one-eighty course correction. Some say it was a tactical manoeuvre related to the upcoming state elections. What ever her reasons may have been, her decision in favour of an accelerated phase-out was a historical one, one which propelled Germany into the biggest energy experiment ever, an experiment of energy transition. Without Fukushima this would never have happened.

Energy transition: a nation in transformation

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At the time energy transition had already been a long-discussed issue and scenario, but the unexpectedly swift implementation surprised everybody: energy suppliers, the grid-companies, the industry, the political parties as well as the European Union. Today, 15 months after the political decisions were made, it becomes evident, that the shift in energy supply is a historical challenge where there is much to win and much to lose:

- Within the next ten years, the grid has to be able to transport electricity generated by offshore windmills in the North Sea to Southern Germany
- Storage capacities must be greatly improved in order to buffer peaks in photovoltaic and other renewable energies when there is no demand
- A lack in energy supply must not occur at any time
- The transition costs must not lead to competitive disadvantages
- All national climate protection goals must be met

To summarize: Germany is performing nothing less than a sweeping transformation towards not only the substitution of nuclear power but also of meeting the 2°C goals of the United Nations framework on climate change.

The good news is that, from the technical and scientific point of view, all hurdles can be taken in time. To name just two examples: in January and February 2012 more electric power was generated in Germany by renewables than would have been generated by the eight NPPs which were shut down after the moratorium. In the first half of 2012, the percentage of

renewables at the energy demand was around 25%. The goal of the government for 2020 is 35%, and 80% by 2050.

In order to make this a success, however, it is mandatory that all parties and stakeholders in society cooperate. Pro-nuclear forces have recently been trying to slow down the transition process, e.g. by stoking fears of increasing costs for households (so called "energy poverty").

The "Big four" energy suppliers are worried that this transformation could lead to a less centralized energy production structure, in favour of more and smaller local generation sites based on renewables. And the industry is concerned about energy supply bottlenecks.

On the other hand, politicians have realised that this transformation may serve as a blue print for other nations. If a highly industrialized nation like Germany successfully transforms into a carbon-poor economy, there will be no excuse for others not to follow suit. Keeping this in mind, we bear a great responsibility to be successful.

The role of the Christian churches (Part II). Post-Fukushima

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The Fukushima catastrophe led to a wave of empathy and solidarity at all Church levels in Germany. Fukushima confirmed that this technology is too risky. However, church leaders can now emphasize even more strongly that it is vital to stick to the phase-out plan. In the last couple of decades the Church in Germany has gathered vast knowledge in the field of nuclear power and has in the process emerged as a widely recognized voice of authority.

That means that the Church should play an even more important role in supporting the transformation towards a sustainable energy mix and reduced energy consumption in Germany. However: the Church has to become proactive! How this can be done will be the focus of the next section.

PART TWO: What constitutes a questioning church?

An important reason for the Church's excellent reputation with respect to nuclear power in Germany was that it asked questions, sometimes inconvenient ones, and followed up on popular arguments. Her strength of argument came from statements in the Bible. People ask for a questioning and interpreting Church. Our challenge, then, is to interpret the scriptures and to take a position. This is a continuous process. The following section will outline the prerequisites of a questioning church.

The need of a holistic view: refreshing the 1983 Vancouver conciliar process

Opposing nuclear power directly relates to the integrity of creation and the endorsement of peace. Today peace is linked to climate change. And climate change directly affects life on earth. Each of these issues directly affects justice.

We have known this since 1983, at least. The 6th Assembly of the World Council of Churches at Vancouver decided to launch the Conciliar Process for Justice, Peace and the Integrity of Creation (JPIC). It was understood as an alliance of mutual commitment and mutual accountability, as a "crucial test for faith" against the background of threats to peace, the environment and society.

After Chernobyl and Fukushima, after several failures of climate protection conferences, after wars on terrorism and in view of worldwide hunger, the JPIC is more relevant than ever. Why then is the impact of the JPIC process on church decision making not stronger? From my point of view it was implemented in most cases as a process of three independent issues. Church leadership is often compartmentalized: there is a commission on peace, a commission on justice and a commission on the integrity of creation, there is a service on agriculture and a service on development aid. But you rarely find a department, council or commission, which combines and bundles all JPIC facets.

In order to resolve the world's problems, however, we need a holistic view of sustainability. In our globalized world everything is linked to everything. It is in this way that the underlying *idea* of JPIC has to be strengthened.

Integrity of creation as theological core task

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But in Germany, too, there is debate within the Church whether the integrity of creation is a central task for people in faith, a task similar in relevance to those of ministry and diakonia. This is a crucial question, indeed, since the answer determines our actions. As long as the idea of JPIC remains a side issue, Church communities will fail to play an important role in resolving the Earth's crises, beginning with nuclear power and ending with climate change. If the communities of faith do not act upon this role, we turn away from this very task given in practically all of the scriptures.

I believe, if communities of faith were to act in this matter with a power similar to those for other core tasks, they could significantly accelerate both political negotiations and a shift in awareness in the industry. This is because many industrial and political leaders are indeed religious. And they seek for advice beyond consulting.

Let me give an example from my Church: in 2003 the Synod, which is the highest board of the Protestant Church in Baden, developed and adopted their first ecological guidelines, comprising seven statements:

- 1. Accepting the responsibility for all creation is a core task of our community of faith
- 2. We honour the inviolability of other human beings in other regions of the world
- 3. We honour the inviolability of future generations
- 4. We honour the inviolability of our fellow creatures
- 5. Our equity management is governed by the value of nature and our social

responsibility

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- 6. We are a learning community based on the principle of mutual solidarity
- 7. We promote the implementation of an environmental management system in our parishes.

Thus, as regional church, we have had a commitment to put these guidelines into practice since 2003.

The prerequisite of a questioning community of faith is its credibility

Credibility develops by acting in accordance with a set of reasonable values. For the past ten years regional Christian Churches in Germany have started several ambitious measures to reduce their climate impact.

- The Protestant Church in Baden: since 2004 over 100 of the 700 parishes have implemented an environmental management system in compliance with the international ISO 14000 standard. With its assistance they carry out environmental and climate protection in a series of continual, verifiable steps. They systematically reduce their energy consumption, involving as many parishioners in the process as possible. In 2010 the synod of the Church in Baden set into effect a climate protection concept with the goal to, by 2020, achieve a 40% reduction of CO2 emissions of buildings and transportation as compared to its 2005 CO2 emissions. More than half of the 20 regional protestant churches in Germany have already approved similar concepts.
- In 2011 the two protestant and two catholic Churches of the state of Baden-Württemberg co-founded a church-owned energy supplier called KSE. KSE sells gas and electricity exclusively to its parishes and social welfare organisations. The electric energy provided has to fulfil two main criteria: it must be generated by renewables and there must not be any connection to companies producing nuclear power.

The credibility of the Church is based on the fact that all examples are based on measurable and verifiable goals.

The Church and its four attributes

I would like to take up an important thought of my predecessor Rev. Dr. Liedke. He describes grass-root groups associated with the Church as another prerequisite for a questioning church. These grass-root groups are partly organised as associations and initiatives, gathering people interested in a particular issue. These groups are not automatically an official branch of a parish. But they trigger many topical debates in society. They stimulate church life and help a parish to grow. For Liedke these "Christian initiatives" are one of a total of four attributes of the German Protestant Church. The other three are the WCC at the international level, the regional protestant churches and the parishes. All four are needed to

establish a powerful questioning church. However, in some cases the Christian initiatives are not recognized by the regional churches, thus diminishing their quality to question.

295 The role of Christian churches (Part III). Moderating and networking

The energy transition in post-Fukushima Germany leads to many open questions and controversial positions of political parties and lobbyists. Due to the urgently needed extension of the power grid, new pylons have to be erected, new wind farms have to be built in wind-rich regions. There are farmers and citizens that protest against these projects. Hence, to make the transition a success, inclusion and participation of every member of society is of prime interest. Here lays the next role of the Church, in particular for their bishops and pastors and staff: they need to establish a communication and discussion platform with the overall goal to substitute fossil energy by renewables. But the Church can only fulfil this role if it has credibility.

The Church's networking role is another aspect that has to be strengthened, as illustrated in the following example: established in 2007, the German Climate Alliance presently lists over 110 environmental or development groups, churches, trade unions and consumer associations as its members. It was established as a broad alliance in order to counterbalance the profit and power interests of the many players within Germany's economic and political establishment. Furthermore, it is to channel and apply public pressure in order to overcome the blockades in climate politics and policy. Every member has to commit to a 25% CO2 emission reduction by 2015.

Conclusion

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In Germany the anti-nuclear movement and the Church were strongly linked from the very beginning, long before the disasters of Chernobyl and Fukushima happened. Especially at local and regional levels, parishes and pastors play a vital role as communicators between stakeholders. The Church is an important partner in finding those solutions which emphasize the issue of integrity of creation. Theological reflection provides a strong ethical foundation for supporting its argumentation. However, this argumentation loses any credibility if the Church only preaches but doesn't act.

Therefore, credibility is essential in order to be accepted as an advisor and role model. Credibility in environmental and climate issues requires ecological guidelines and measurable and verifiable goals and actions. One way how regional German churches implement this is by adopting regional climate action plans.

People ask for a questioning Church. To become questioning, all four aspects of a Church must be present in order adequately reflect the challenges and risks of our way of life.

Fukushima led to a fundamental change in Germany and the beginning of an energy

transition!

One particular role that the German Church after Fukushima will have to fill is to moderate the public discussion on the challenges of the energy transition and to guide society on its historical way of transforming into a carbon-poor and nuclear-free economy to prevent any fall back. This must be accompanied by a combination of bottom up and top down networks and initiatives by people of faith.

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The energy transition goes hand in hand with a holistic social transformation. This process will only be successful if all of us are willing to change our lifestyles to achieve more sufficiency. *Sufficiency* may be the overall central answer comprising the complex challenges described above. The Platform for Climate Justice, another German Christian Network, defined sufficiency as follows:

"The freedom into which Jesus Christ liberates us, confronts us with the task of overcoming the dependency on consumerist lifestyles that, if adopted on a global scale, will be the downfall of humanity. Finding ways in affluent societies to 'live more simply', in the context of social justice and a future for life anywhere in the world, is something we therefore view as a central challenge for communities of faith."

The bible describes this kind of economy as "enough for all".

Nuclear power and climate change have one thing in common: *hubris*. The creed that any problem can be solved by technical innovation is hubris. Instead, we have to act preventively and with respect for future generations and our fellow creatures. Let me emphasize it one last time: we have to act now.

I would like to close with an excerpt from a sermon given by Bishop Fischer on 08 February 2012 when he commemorated the 40th anniversary of the resistance of Whyl, where he dedicated a memorial stone with the following inscription:

"At the beginning was Whyl [...], the civilian protest and resistance of Christian congregations, at the end Fukushima. [...] The history of the use of nuclear energy, while often still portrayed as a success story in spite of the Harrisburg, Chernobyl and Fukushima disasters, is a didactic play about the lack of human humility and the fallacy of man's crossing frontiers which does not remain unpunished".

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Finally a kind suggestion to enhance the credibility of this conference: please consider compensating for your CO2 flight emissions.