



SMART VILLAGES
New thinking for off-grid communities worldwide



Smart Rural Development: The Sustainable Development Goals and the New European Consensus on Development



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Smart Villages

We aim to provide policymakers, donors, and development agencies concerned with rural energy access with new insights on the real barriers to energy access in villages in developing countries—technological, financial and political—and how they can be overcome. We have chosen to focus on remote off-grid villages, where local solutions (home- or institution-based systems and mini-grids) are both more realistic and cheaper than national grid extension. Our concern is to ensure that energy access results in development and the creation of “smart villages” in which many of the benefits of life in modern societies are available to rural communities.

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EASAC

The European Academies’ Science Advisory Council - is formed by the national science academies of the EU Member States to enable them to collaborate with each other in providing independent science advice to European policy-makers. It thus provides a means for the collective voice of European science to be heard. EASAC was founded in 2001 at the Royal Swedish Academy of Sciences.

With the growing importance of the European Union as an arena for policy, national science academies recognise that the scope of their advisory functions needs to extend beyond the national to cover also the European level. Through EASAC, the academies work together to provide independent, expert, evidence-based advice about the scientific aspects of public policy to those who make or influence policy within the European institutions. Drawing on the memberships and networks of the academies, EASAC accesses the best of European science in carrying out its work. Its views are vigorously independent of commercial or political bias, and it is open and transparent in its processes.

Publishing

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SUMMARY

The Sustainable Development Goals (SDGs) and the New European Consensus on Development were the focus of a workshop held in Brussels on 20 June 2017 organised by the Smart Villages Initiative and the European Academies' Science Advisory Council (EASAC). The workshop brought together policymakers, civil society, private sector representatives, researchers, scientists, and others to discuss how the SDGs and New Consensus could best serve people living in rural areas of developing countries that are at the bottom of the pyramid and part of the “last mile”.

Generally, workshop participants welcomed the New European Consensus on Development as reflecting a strong European commitment to achieving the SDGs. However, some concerns were expressed that the New Consensus gives too much attention to addressing issues of migration into Europe, potentially at the expense of remaining focused on eliminating poverty. There was general agreement that the root causes of migration should be the central concern and that an integrated approach, where initiatives address a range of SDGs, is required. The smart villages concept was recognised as providing an appropriate response to these considerations.

The big challenge will be in the implementation of the New Consensus: the pace of progress will need to be substantially increased, and ways must be found to ensure that rural communities are in the driving seat of their development. Mechanisms should be put in place to ensure that the voice of villagers can be heard and acted on by policymakers and development bodies. Effective partnerships will be required, particularly with the private sector whose contribution is in the profitable delivery of goods and services that people want, not just as a source of additional

finance. However, concerns were expressed that if supported by development funds the private sector must genuinely contribute to rural development.

Care should be taken to ensure that development initiatives reach, and address the problems of, marginalised communities. A rights-based approach and effective democratic engagement enabling inclusive decision-making are important in this respect. Effective coordination between different governance levels—national, regional and local—is needed, and there should be closer integration between development initiatives focusing on rural and urban communities, recognising their close interlinkages. There is value in sharing experiences between rural communities and, taking the example of the Covenant of Mayors, a similar initiative operating at the village level should be considered.

Agriculture will remain the mainstay of the economy of most rural communities: increases in productivity and value added through post-harvest processing, and achieving higher prices in the market through connectivity, will be key to achieving the SDGs. A career in agriculture needs to be made attractive to the youth: the new opportunities arising from modern agricultural techniques and being able to sell higher value products in local, national, and international markets make this a realistic proposition.

The effectiveness of the EU's external development assistance is intrinsically linked to internal EU challenges. Addressing these internal challenges in line with the 2030 Agenda will strengthen the EU, build internal solidarity, and further strengthen the role and credibility of the EU as a key global player.

INTRODUCTION

The Smart Villages Initiative and the European Academies' Science Advisory Council (EASAC) held a one-day workshop focusing on “Smart Rural Development: the Sustainable Development Goals and the New European Consensus on Development” in Brussels on 20 June 2017. The New European Consensus on Development was proposed in November 2016 and the European Parliament adopted its position in February 2017. On 7 June 2017 at the European Development Days the New Consensus was adopted by the EU Institutions and member states. This New Consensus will play a central role in how the Sustainable Development Goals are approached via European Union and member state policies.

To this end, the workshop gathered together policymakers, civil society, private sector representatives, researchers, scientists, and others for a series of presentations and open discussions under Chatham House Rule re-

garding the direction of the New Consensus and the Sustainable Development Goals, particularly focusing on people living in rural areas of developing countries that are at the bottom of the pyramid and part of the “last mile”. The aim of the workshop was to move the conversation forward regarding the implementation of the New Consensus and Sustainable Development Goals, engaging both top-down and bottom-up perspectives from policymakers and practitioners. A central premise was that ensuring an integrated and holistic approach to development—with a strong focus on the people most at risk of being “left behind”—should be a central part of the implementation of the New Consensus and Sustainable Development Goals.

This report summarises the presentations and discussions at the workshop. The workshop agenda and list of participants are provided at Annexes 1 and 2 respectively.



Karine Genty (European Commission), Sarah Rinaldi (European Commission) and Natalia Alonso (Oxfam EU) listen carefully to other presentations in Panel 1.

INTRODUCTORY PRESENTATIONS

The Smart Villages Initiative: John Holmes, Co-Leader Smart Villages Initiative

The Smart Villages Initiative is concerned with how energy access for rural communities can catalyse their development. John Holmes explained that the Initiative takes an holistic approach to village development consistently with the strong interlinkages between energy access and the other Sustainable Development Goals. The smart villages concept is founded on the need to provide a substantially enhanced development path for rural communities and the new possibilities that are emerging through technological developments.

Over the three-year period 2014 to 2017 the Smart Villages Initiative has run engagement programmes in six regions (East and West Africa, South and Southeast Asia, South America, Central America and the Caribbean) which have included over 30 workshops in which key frontline workers have been brought together to discuss the barriers to village-level energy for development and how those barriers can be overcome. Key conclusions and recommendations arising from these engagement programmes have been communicated to policymakers and development bodies in order to enhance rural development policies and increase the effectiveness of village-level interventions.

John Holmes provided a high-level summary of the conclusions and recommendations arising from the engagement programmes in the following six points:

- Current silos need to be replaced by a much more integrated approach requiring close collaboration between organisations concerned with development in order to realise synergies and increase development impacts.

- Supportive policy frameworks should ensure energy access initiatives are fully integrated with other rural development initiatives. These frameworks need to have high-level political commitment, be stable and coherent, provide clarity on roles, and be firmly based in realities.
- The focus should be on building effective markets rather than giving things away, and subsidies should be carefully targeted and time-limited.
- Substantially higher rates of funding are required: innovative ways need to be found to attract private sector funds and to reduce the transaction costs for key players.
- Better collaboration is needed between university researchers and frontline organisations, and methodologies are required for the evaluation of development outcomes arising from energy access.
- Value chains should be evaluated to identify shortfalls in skills and capacities, and governments and development agencies should put in place training programmes to address them. Investment in business incubation and advisory support services are worthwhile, and initiatives to raise villagers' awareness of energy technologies and how they may be productively used should continue.

EASAC: Christiane Diehl, EASAC Executive Director

The European Academies' Science Advisory Council (EASAC) represents the collective voice of the national academies of science of the EU member states, together with Norway and Switzerland, and is a source of authoritative, independent scientific advice for policymakers in the EU's

institutions and member states. It was founded in 2001. EASAC's publications are designed for a policy-oriented audience, and present detailed analysis and recommendations from Europe's most respected scientists.

EASAC has three main programmes for providing scientific advice to policy: biosciences, energy, and environment. Christiane Diehl gave examples of recent reports and journal publications emanating from each of these programmes.

EASAC is a member of the global network of science academies—the Inter-Academy Partnership—along with networks of national science academies in Asia, America, and Africa. Responding to a request from the European Commission to deliver integrated advice from all the sciences, EASAC has joined with four other European networks of academy organisations to create SAPEA: Scientific Advice for Policy by European Academies. SAPEA forms part of the Science Advisory Mechanism established by the European Commission in 2015.



Philip Bob Jusu (African Union Commission) and Louis Seck (Energy 4 Impact Senegal) listen to the presentations.

PANEL SESSION 1: AMBITIONS AND AIMS FOR THE NEW EUROPEAN CONSENSUS ON DEVELOPMENT/SDGs

Cristina Amaral, Director EU Liaison Office, United Nations Food and Agriculture Organization

Cristina Amaral opened her presentation by welcoming the New European Consensus on Development, which she considered aligns well with the Sustainable Development Goals and reflects a strong European commitment to development worldwide. The collective efforts of the European Union are much needed in achieving the global goals and Agenda 2030 is important to the European Union, enabling growth and increases to wellbeing both within Europe and externally.

The New European Consensus on Development provides a good anchor in establishing sound principles: the key challenge now for Europe is to put in place the means of implementation. It will be important to learn lessons from the implementation of the Millennium Development Goals: while they did help lift people out of poverty, they were top-down and the monitoring framework took time to develop.

The Sustainable Development Goals are very broad with multiple targets, though the principles and key aims are simple. The equality agenda is an important component of the Sustainable Development Goals, requiring good governance and new partnerships. To date 140 governments have requested support from the UN, reflecting the fact that governments are running with Agenda 2030 and mainstreaming it within their policies. Robust institutional frameworks are needed to support delivery of equality objectives.

Delivery of the Sustainable Development Goals will require governments to achieve the 0.7% of Gross National Income which is the internationally agreed target for overseas development assistance. The focus should be on the least developed countries. It will be important to monitor progress, which will require reliable data and the moni-

toring framework currently being developed for the Sustainable Development Goals.

Key issues of today include peace, security, and migration. Aid delivery should not be contingent on governments taking action on migration: this would jeopardise achievement of the Sustainable Development Goals. The focus should be on tackling poverty which is a key root cause of migration. This should be seen as an opportunity for growth, and the narrative of migration needs to be changed from one of fear to one of opportunity.

Karine Genty, Deputy Head of Unit C.6, Sustainable Energy and Climate Change, European Commission

Karine Genty reminded workshop participants that over one billion people still do not have access to electricity. It is important that Agenda 2030 recognises energy access as transformative for achieving most of the Sustainable Development Goals. Electricity is crucial to enabling connectivity, which is also essential to development. The fight against climate change is key: climate change and sustainable development are two sides of the same coin.

It is encouraging that the global community is now mobilised and that a transition is in process. For the long term we can be confident that a course has been set for the decarbonisation of the economy, but the immediate challenge is how to deliver. The New European Consensus on Development captures the importance of energy access and tackling climate change as crosscutting and key to poverty alleviation.

Effective implementation requires better inter-linkages and actions will need to address several SDGs, taking integrated and holistic approaches. Issues of energy access and climate change will need to be mainstreamed in all actions, including, for example, agriculture. Initiatives will be

needed that address nexus issues: for example, the European Commission is currently developing a platform on energy and water.

The New European Consensus on Development recognises that aid alone will not be sufficient: different sources of finance will be required and will need to be integrated. More will need to come from developing countries themselves through more effective taxation, etc., and effective blending schemes will be required in order to attract private sector money.

The European Council's conclusion on development in November 2016 binds member states to work together through joint programming approaches. Policy coherence is needed in which Directorates General (DGs) responsible for development, climate change, energy, and research work effectively together. For example, DG Research and Innovation is developing a new initiative on energy for researchers in Africa and the European Union. In the next period it is intended to establish an initiative on energy in buildings.

There are three key pillars in Europe's approach to energy for development: political ownership, capacity building and access to finance. With regard to political ownership, 30 bilateral agreements have been put in place with governments in developing countries and dialogue is being undertaken with different levels of government; for example, with municipalities through the covenants of mayors. Capacity building includes advice to governments on how to achieve electricity access, using local solutions and not just grid extension, and providing planners with the tools needed to decide how to achieve universal electricity access. More initiatives will be taken on lending to leverage finance from the private sector. The ElectriFi programme supports small- and medium-scale projects and has launched a call for proposals on how to integrate gender into energy initiatives.

Sarah Rinaldi, Acting Head of Unit B.1, Human Rights, Gender and Democratic Governance, European Commission

Sarah Rinaldi underlined that the New European Consensus on Development puts a strong emphasis on civil society and the role of civil society organisations (CSOs) as promoters of democracy, and defenders of rights holders, the rule of law and social justice. It further characterises democracy as vital for sustainable development and in this respect goes further than the Sustainable Development Goals. The Consensus commits the EU and its member states to taking a rights-based approach (RBA) to development cooperation. This was identified as important in inputs made during a public consultation last year, and was also supported internally. This prominent commitment to the rights-based approach encompasses all human rights: civil, political, economic, social, and cultural.

The New European Consensus on Development expresses a special concern for the vulnerable and disadvantaged, and requires that there should be no discrimination against them.

Most of the world's poor live in rural areas: they have received insufficient attention in policy and have not seen their economic, social, and cultural rights realised. Access to basic services, particularly for women, is key. While there is no "right to energy" per se, we should draw on the right to an adequate standard of living to guide our interventions in the energy sector. A rights-based approach is not just about principles; rather it provides a working methodology that makes the link to binding legal provisions.

Interventions should be designed so that they reach the most marginalised. For example, a disproportionate number of persons with disabilities live in developing countries, often in rural areas and in extreme poverty. The EU, as a party to the UN Convention on the Rights of Persons with

Disabilities, is obliged to make its development cooperation accessible for people with disabilities. This is an important aspect of the RBA under the non-discrimination working principle. The RBA also serves to embed the principle of free, prior, and informed consent of indigenous peoples in the design of infrastructure projects, for example, allowing us to take into account affected communities' own visions for development.

It is likely to take some time before all European development projects take a rights-based approach. Training is being undertaken within the European Commission to sensitise staff to the rights-based approach, and to ensure that it is not just a tick-box exercise but is properly embedded. More examples are needed of how a rights-based approach can work and the Commission has initiated coordination with member states in this regard. There is no dichotomy between development and human rights.

Natalia Alonso, Deputy Director of Advocacy and Campaigns, Oxfam EU Advocacy Office

Natalia Alonso invited workshop participants to imagine themselves in 2030 looking back and reflecting on how well we had done in working towards the Sustainable Development Goals. Looking back to 2017, eight men had the same wealth as 3.6 billion people: such extreme inequality is not inevitable. One in eight people did not have enough to eat; the poorest people had contributed least to climate change but suffered the most from it; and the least developed countries were losing \$100 billion each year due to corporate tax dodgers.

Initially, the New European Consensus on Development was a good piece of work, committing Europe to the Sustainable Development Goals, but the final document is a disappointment. Ambitions have been watered down, and key aims distorted: rather than retaining a focus on lifting people out of poverty, the Consensus responds to current policy imperatives. Development assis-

tance should not be used to reduce mobility and should not be made conditional. It is not possible to stop people fleeing from conflict and poverty: what is needed is a long-term solution.

Overseas development aid is important in helping people out of poverty, and represents a smart strategic investment. The Overseas Development Institute has published a report which concludes that if EU member states met their target of 0.7% of gross national income for overseas development assistance, this would actually increase overall growth in the European Union.

With regard to the involvement of the private sector in development, Oxfam is concerned that care should be taken as to which parts of the private sector are involved, for whom they will deliver benefits, and how they will reach the poorest. For example, with regard to agriculture, it is questionable whether public-private partnerships are reaching smallholder farmers. Oxfam cautiously welcomes the involvement of the private sector provided that it genuinely leads to development impact. But it is not a magic bullet.

Tax dodging is an important issue in respect of policy coherence. For example, in Sierra Leone in 2012 tax incentives were given to just six companies which were equivalent to 50% of the national budget.

Is important to recognise that implementation of the Consensus is political and to challenge embedded interests.

Simon Collings, Director of Learning and Innovation, Energy 4 Impact

Simon Collings explained that Energy 4 Impact is a not-for-profit organisation which works with businesses providing energy services in sub-Saharan Africa, providing them with advice on business strategy and how to raise finance. Energy 4 Impact's experience indicates that the private sector has a lot to contribute towards energy for rural development.

He is concerned that the New European Consensus on Development is rather ambiguous on the role of the private sector, referring to it just 17 times, the first time being paragraph 41. Paragraph 53 sums up the tone, looking to the private sector as a source of finance, but requiring it to be regulated.

The private sector has its own dynamic: it is there to provide goods and services that people want in ways that are profitable. It is important to recognise this dynamic and to work with the private sector, enabling it to contribute through what it does well. If the private sector is just seen as a source of finance then this contribution will be missed. The European Union should fund innovation and help companies bring this innovation to markets: this model will help capitalise on where the private sector can best deliver.

With regard to the financial returns required by the private sector, risk is always an issue. There are very often concerns about corruption and political uncertainties which make it difficult to achieve adequate returns. While this risk profile remains, private sector capital will not flow in.

Energy 4 Impact works with businesses that are deploying disruptive technologies and business models such as pay-as-you-go solar home systems. These companies are setting out to rewrite the way in which rural electricity will be provided: the situation in 2030 will be very different to what it is now. In developed countries, people are defecting from the grid, just using it as a back-up for their home-based renewable energy supplies. This is causing problems for the utilities which consequently need to increase their prices. This in turn increases the impetus for householders to defect.

The spread of solar home systems in East Africa has happened from the ground up and despite government policies. The hierarchy still considers grid electricity is the best. The businesses Energy 4 Impact is working with are trying to change the narrative.

Is important to be realistic about what businesses can and cannot do: they do not constitute a silver bullet. Solar home system companies are servicing the 50% of the rural population who can afford the systems. Others are too poor or too mobile. These companies are running millions of euros in debt and therefore need to find reliable customers. It is challenging for such businesses to service the poorest, but with appropriate incentives and subsidies they can be encouraged to work with more marginal customers.

Andrew Bradley, Director Office of International IDEA to the EU

International IDEA is an intergovernmental organisation supporting democracy globally. Andrew Bradley considered that there are four critical ingredients of the New European Consensus on Development and the Sustainable Development Goals: involvement of citizens; accountability; democratic governance; and the political will to implement change at local, national, regional, and global levels. Key questions relate to the structural obstacles and challenges to achieving the Sustainable Development Goals, the means to deliver them, and whether the New European Consensus on Development is fit for purpose. With regard to establishing a monitoring framework for the implementation of the Sustainable Development Goals, an important question is whether we measure what we want or want what we measure.

There can be no sustainable development without democratic governance and respect for human rights. Inclusive, participatory, and representative democratic institutions and decision-making structures need empowered citizens. Rural communities therefore need a voice and the capability for active participation in governance processes: this will be a crucial enabler of the Sustainable Development Goals. Taking such a people-centred approach enhances accountability to citizens, and will help overcome the problem of organisations working in silos.

Andrew Bradley welcomed the alignment of the New European Consensus on Development and the Sustainable Development Goals, and indicated that the key issue now is transforming words into implementation. It will be important to implement the EU commitment to increase policy coherence for sustainable development, including improving coordination with other donor countries. The Sustainable Development Goals can be transformative for the European Union: they present a vision around which the EU member states could unite, benefit, and revamp the EU project.

Global goals need to be translated into national goals and the European Commission can usefully provide support to member states to do so. The role of women and youth is indispensable for the implementation of the 2030 Agenda, as is national ownership based on the involvement of all. The Sustainable Development Goals provide the room for change, but we need to rethink policies with the objective of achieving fairness, inclusiveness, and sustainability. The success of the Sustainable Development Goals depends on whether we act politically in a collective manner, innovate radically, measure effectively, and collaborate differently. The Smart Villages Initiative provides a clear concept for how a more holistic approach can be realised.

Discussion

Additional points made by panel members in the discussion are summarised as follows:

- The pace of implementation will need to be much faster if the Sustainable Development Goals are to be achieved by 2030: radical changes will be required.
- Effective partnerships will be key and will need to take new shapes and to ensure the engagement of the private sector: the ElectriFi initiative should provide an opportunity to learn about how such partnerships can be set up.
- There are a number of relevant current initiatives within the European Commission; for example, on monitoring and evaluation, renewable energy and climate change, etc., and interlinkages are being examined.
- It is intended that there will be more engagement with the private sector in respect of renewable energy for development, but partnerships should demonstrate development outcomes if development cooperation funds are used.
- There are various ways to intervene to make energy for rural development more attractive to the private sector, but it can be complicated. For example, there can be tensions in respect of confidentiality and disclosures, with different approaches required for EU grants compared to what would be the norm for interactions between banks and the private sector. It will be important for the European Commission to listen to the private sector in order to better understand how to work with them.
- Establishing blending arrangements for financing can take six to 24 months, and is a more complex process than the classical letting of EU grants. It is important to demonstrate the additional impact resulting from EU support.
- Democracy starts at the lowest level, and a rights-based approach can help ensure effective public participation in initiatives.
- Agenda 2030 is not just about development assistance; it is also for national governments. It will take more time to ensure the coherence of EU policies across the board.

- There are challenges in the delivery of the Sustainable Development Goals in scaling effectively between global, national, local scales, and individuals. Few people understand how the Sustainable Development Goals should work. It will be important to prioritise the goals and to adapt them to the local context, but there may be a cherry-picking problem if this results in action only on the easiest targets. Citizens need to be involved in selecting the targets.

Additional points made in the discussion by workshop participants are summarised as follows:

- A concern was expressed about the partnership between the African Union and the European Union, which should be reviewed in order to make more progress on the Sustainable Development Goals: the EU should listen more to people's views.
- EU cooperation with certain governments in Africa was questioned. The counterpoint was that populations should not just be abandoned because their governments are suspect. The EU tries to work at different levels, including civil society, and reminds governments of their responsibilities.



Scientists from across Europe joined on behalf of the co-organiser, European Academies' Science Advisory Council

(Pictured L to R: Elisabeth Rachlew, Professor, Applied Atomic and Molecular Physics at the Royal Institute of Technology KTH; Christina Moberg, EASAC Vice-President and President, Royal Swedish Academy of Sciences, and Christiane Diehl, Executive Director, EASAC).

PANEL SESSION 2: VOICES FROM THE VILLAGE – WHAT DO PEOPLE AT THE BOTTOM OF THE PYRAMID NEED FROM THE SDGs AND THE NEW EUROPEAN CONSENSUS?

Indonesian perspective: Tri Mumpuni, Executive Director, IBEKA

Tri Mumpuni explained that, from the experience of IBEKA's (Institut Bisnis dan Ekonomi Kerakyatan : People Centred Economic and Business Institute) activities in Indonesia, as well as more broadly in Southeast Asia, one of the greatest priorities is to adjust the fundamental paradigm of development initiatives, in terms of where the development is driven from. Instead of development initiatives and solutions deriving from external will, there needs to be a transformation to leadership deriving from internal passion and will within the community, for which support can come externally. The notion can be simply put as moving from a model of "giving instructions" to one of "be quiet and listen".

Typical aspects of a traditional development model inevitably end up including a dominance of local elites, development pathways which are controlled from outside, the transfer into a community of technologies designed elsewhere for other or general situations, passive compliance with external suggestions, and external "experts" imposing solutions, corrections and improvements.

One of IBEKA's flagship programmes places newly qualified engineers in local Indonesian villages for a number of months, purely to learn about the community about their challenges, opinions and desires. This, they have found, results in professionals more aware of local issues, and more willing to work productively with the local community in finding optimum solutions. The new mode of development that emerges is one of mutual learning between the community and external actors, and hence a partnership in problem solving, interaction, and consensus building. Other features of this mode of development include active participation and decision-making

by the community in development initiatives, a balance of scientific and traditional local knowledge being applied, appropriate technology being shared, and most importantly building a local team within the village to sustainably control their own development pathways.

Latin American perspective: Karl Kolmsee, Smart Hydropower/Alliance for Rural Electrification

Karl Kolmsee reported on Smart Hydropower's experiences of working in the very remote areas of Latin America, in communities which because of their remoteness find themselves totally disconnected from "normal" national life. These communities often include the disenfranchised, who have been displaced from traditional lands by internal conflict, or for other economic or strategic reasons. The challenges for such communities focus largely on how to make a living, and how to reintegrate themselves into a broader society, but there are also challenges with the internal social structure of each community. They are rarely fully democratic, and there are frequently dominant families who end up controlling much of the resources and making most of the decisions.

However, this structure is often the only system of stability in the community, so external initiatives need to work with it to succeed. Traditional non-renewable energy activity, whether through diesel gensets, kerosene, or others, will tend to involve needing to spend money on energy, so it is the financial "leaders" of the community who will be best placed to make productive use.

There is need to work in an integrated fashion with the communities to understand not only immediate needs but also the likely modalities of interacting with new technologies. As an example, Karl Kolmsee cited a floating kinetic hydroelectricity project that had been implemented in one

of these remote communities, with a focus on trying to establish productive use. All the community wanted, however, was to use the energy for entertainment, television and internet access.

On closer investigation, it emerged that this community had no history or experience of processing food, the growing of which was their principal daily activity, and since one of their priorities was cultural and social integration, and normalisation with the rest of the country, accessing that through the means of television and internet turned out to not be so unreasonable. The lesson which Smart Hydropower drew from this, and has sought to implement since, is the need for integrated/holistic development projects that work with the community to address social, cultural, and integration issues, as well as the technical and economic aspects. Moreover, it is essential to integrate productive activities in the village as this means there is community ownership, and therefore guarantees, to a certain extent, reliability in operations.

West African perspective: Louis Seck, Energy 4 Impact

Louis Seck began by summarising the integral connection between climate change, energy access and the SE4ALL goals, and the Sustainable Development Goals. He also gave an overview of the energy situation in Senegal.

The most important rural energy use application in West Africa is cooking, so biomass is the major energy source. There is great potential for solar, wind, and hydro-power for electricity generation. The main barriers to achieving a transformation to clean energy for development are difficulties in accessing finance for initiatives, the need for clear enabling regulations and legislation (for example, on import duties and equipment standards), the need to raise awareness and innovation in the productive uses of energy, and the technical capacity levels of rural communities of users as well as expert installers. There is also a need for better coordination of the strategies of national,

local, and village governance structures, as well as a need to make explicit the role of clean energy in achieving outcomes in poverty alleviation and development.

Sarawak perspective: Ezra Uda, PADE and Tariq Zaman, UNIMAS

Ezra Uda of the People's Action for the Development and Education of the Penan (PADE) in Sarawak, Malaysia, explained that the Penan are a traditionally nomadic hunter-gatherer people who only began to settle in fixed locations in the 1950s due to government and missionary intervention.

Their extreme remoteness and lack of supporting infrastructure (for example, roads) makes development initiatives even more challenging. But there have been a number of projects aimed at bringing energy and resulting development benefits to the Penan. Technical challenges arising from the remoteness and environmental extremes (for example, flooding), combined with the particular cultural and social aspects of Penan settlements, have necessitated a very interactive development paradigm to ensure that technology is locally-appropriate and is meeting the needs and expectations of the local communities. Tariq Zaman of Universiti Malaysia Sarawak (UNIMAS), who has worked extensively with Penan communities, described this as a process of working “with” the community as opposed to working “for” or “on” the community, and pointed out that only an approach like this could work.

Underlining the need for leadership and expertise at community level, Ezra Uda pointed out that it is smart people who make a smart village, rather than the other way around.

Tanzania – the East African experience: Andrew Mnzava, International Finance Corporation

Presenting via teleconference, Andrew Mnzava began with an overview of rural electrification statistics in Tanzania, and pointed at the marked improvement in electricity access and use of re-

newables in the country since 2012. One of the principal uses of electricity in rural areas is for lighting, where the main source is still kerosene wick lamps.

The International Finance Corporation's (IFC's) main role is to promote solutions in the development of the private sector to promote energy access and renewable energy through mini-grids and home-level lighting solutions. Partnership with the Ministry of Energy and Minerals in Tanzania is key to this in Tanzania, as is the wider international partnership through Lighting Africa. The goal is to achieve clean off-grid lighting and energy services for five million rural Tanzanians.

Lighting Africa is an initiative led by the World Bank and IFC that mobilises the private sector to create a vibrant commercial and sustainable market for high-quality solar energy products. It aims to lower market entry costs/barriers, improved the enabling environment, and support the scale-up and replication of successful business models.

Particular challenges that are being faced are quality assurance standards, availability of business support and advice to the private sector, especially to those entering the market, and the need for better market intelligence and aware-

ness. Standards need to be integrated into the regulatory environment and financial institutions need to support companies selling solar lights and solar home systems with fair lending across the supply chain. Efforts should continue to increase consumer awareness and to establish rural distribution networks. Creating a market is a collective effort involving partnerships between the public and private sectors.

Discussion

The main topic of discussion, based on the key messages from the presentations, was the need to make projects more community-led and focused in the future. This is particularly important for two reasons – firstly, without this approach projects are less likely to succeed and to address the particular needs of each community; secondly, without building skills and ownership within the community, projects are unlikely to be sustainable in the long term, as there will be little incentive or ability to maintain equipment and continue to use it in a productive manner. Building a new development and project paradigm is therefore key.

A second topic of discussion was the value in building a network, perhaps based on the Global Covenant of Mayors, but at a village level, to allow village-to-village collaboration and knowledge sharing, and to allow a real rural community voice to be heard in international development dialogue.

PANEL SESSION 3: VOICES FROM THE PRIVATE SECTOR, SCIENCE AND CIVIL SOCIETY

Moderated Panel Discussion

Moderator: Molly Hurley-Dépret

Panel members:

- Alexander Brummeler, Finance Innovation, Azuri Technologies
- Hanna Saarinen, Investment in Agriculture Policy Advisor, Oxfam EU
- Christina Moberg, Vice President EASAC and President, Royal Swedish Academy of Sciences
- Joop Hazenberg, Senior Manager European Advocacy, GSMA

· Rita Poppe, Public Affairs, ENERGIA / Hivos

· Isolina Boto, Technical Centre for Agricultural and Rural Cooperation (CTA)

Molly Hurley-Dépret posed a series of questions to panel members, set out in bold below.

Science, technology and innovation are critical for enabling energy access in rural locations, and social sciences also play a critical role in the success of energy access initiatives. How are researchers contributing to attaining the SDGs?



Molly Hurley-Dépret moderates the discussion with Christina Moberg (EASAC), Hanna Saarinen (Oxfam EU), and Rita Poppe (Hivos).

Christina Moberg:

The sciences have many roles to play in the attainment of the SDGs, and the mode of implementation of new technologies is very important. In terms of policy advice, timeliness is critical for impact.

Access to energy should not be a goal *per se*, and science is needed to develop the rural services enabled by the availability of electricity. Villages need to take the lead, and training and capacity are fundamental enablers of the process. National universities have very important roles to play. Monitoring and evaluation of initiatives should also be prioritised to learn not only from successes, but also from failures.

CTA has focused on making a connection between the African, Caribbean, and Pacific (ACP) group of countries and the EU, and ensuring that change happens at the ground level. At the policy level, what has been accomplished so far and what more needs to happen?

Isolina Boto:

Agriculture is key for rural areas. A key priority is the dissemination of agricultural research outputs and new knowledge to smallholder farmers. Traditional governmental agricultural extension services are increasingly inadequate to serve rural populations, and therefore new innovative avenues for disseminating information to farmers need to be explored. Partnerships can play a positive role, in particular between the private and public sectors (PPP).

In terms of policies, more work is needed on several interconnected areas that impact rural development: trade, climate change, nutrition, education, and energy. Also, more attention is needed to determine how policies impact smallholder farmers, in particular the more vulnerable groups including women and youth. Information and communication technologies (ICT) play an

increasingly important role in facilitating capacity building for business. Farmers should also be supported to better organise themselves in order to increase their bargaining power.

It is important that smallholder farmers are considered as business people who need fair opportunities instead of simply as the beneficiaries of projects. Suitable policies for smallholder farmers are required, especially focusing on investment and financing aspects, and access to credit. What is still missing, especially for women farmers?

Hanna Saarinen:

Democratic governments, participation of the communities concerned, and bottom-up approaches are all central to rural development. The existing EU policies are relatively good, and there is a broad consensus on the importance of agriculture for the development of rural areas. The EU developed in 2010 a specific policy on food security which places smallholder farmers at the centre and highlights the important role of women. These policies are, however, not fully implemented and are also not matched in the allocation of funds: between 2007 and 2015 only a fraction (less than 25%) of EU funding was devoted to smallholder farmers, and even less to women (2-3%). A change in mindset is required to overcome this contradiction, to positively recognise the potential of smallholder farmers, and to effectively implement the relevant policies.

Basic extension services, training, facilitating access to markets and credits, and enabling farmers to become organised are still needed. Most importantly, it should be up to farmers, not developers, to have an active say in the projects carried out, from their design and implementation to their monitoring and evaluation. Farmers need to be seen as agents of change, not passive “beneficiaries”—a term that has become

part of the institutional language and should be replaced. Closing the gap between policy and practice needs to be a priority.

Asked about the Pink Phone project, Hanna Saarinen explained that the project was initiated by a local partner who recognised that, despite the social and economic importance of mobile telephony, and the fact that most households have access to a phone, often it is the men and not women who have control over this resource. The project enabled women to access mobile phones in order to have direct access to information. The phones distributed were pink, which made it socially unacceptable for men to hijack them.

Despite the potential of mobile phones, several practical issues need to be addressed, such as access to electricity, network coverage, language, and access for the most vulnerable individuals within households. Only local partners can identify and help solve this type of issue.

Access and use of mobile phones for development can be said to underpin all SDGs. From the perspective of GSMA, which is their greatest impact?

Joop Hazenberg:

Currently, there are five billion people using a mobile phone, and in the next five years another billion are predicted to become connected. Key challenges include how to increase inclusivity (connect everybody); accelerate the evolution of industries and services; and increase the participation of users in rural areas. Access to mobile internet and limited connectivity in remote, dispersed communities are also limitations. The investment required to build radio stations in unserved communities is very high, and therefore cheaper models to provide coverage need to be developed. From the perspective of users in rural areas of developing countries, affordability (cost of connectivity in relationship to

household earnings) is a problem, as are the low level of digital skills and the lack of content in local languages.

Success stories include mobile money, which has 500 million registered users, and mobile technologies for development utilities. Pilots in finding and delivering new business models with mobile technology as an enabler need to be promoted (e.g. the 'Pay as you flush' project).

Mobile health applications (for example, anti-natal and post-natal care, and information on how to find healthcare and doctors) have great potential, as do mobile apps to improve agriculture productivity and profitability which have already reached over five million farmers with information on crops and markets. Deployment of mobile technology for development needs to be assessed using key performance indicators, and initiatives should be scalable and have a sustainable business model behind them.

What is the perspective of a venture-backed private company which relies on mobile phone technology for its business model to provide energy access to rural areas in Africa?

Alexander Brummeler:

Azuri combines pay-as-you-go energy with the deployment of energy-efficient appliances to enable their clients to upgrade from basic energy services (one or two light bulbs and the potential to charge a mobile phone) to systems that support more aspirational demands. The company is also increasingly focusing on solar irrigation to promote productive uses of energy.

A key concern for the company is affordability, which is aided by the fact that the cost of solar technology is decreasing. Systems start at US\$200-250; however, since most customers cannot afford the upfront cost of the technology, the services are provided to them for US\$0.5-1/day with pay-as-you go innovation. This is a sum that most

households not connected to the grid already pay for less efficient and dirtier forms of fuel, such as kerosene and candles (solar lights are 100 times brighter than the light of a kerosene lamp). The expenditure therefore represents a redeployment of funds rather than a new expense for households.

In terms of product innovation, new designs are driven by affordability and efficiency concerns. For the business model it is important that adding new appliances does not require increasing energy consumption by a factor of 10.

Why is energy access important? Will energy access lead to achieving the SDGs?

What do we need to do to make sure energy access delivers developmental benefits to rural communities?

Rita Poppe:

Energy is essential for education. However, for the development of rural communities, light by itself is not sufficient. A tiered approach to energy access has been designed to ensure communities do not remain stuck at the most basic level of energy services. One problem is that with respect to energy access the emphasis is often on grid connection, which is not a realistic possibility for many unconnected communities in rural areas.

Providing clean and sustainable energy to the bottom of the pyramid will require the participation of the private sector. This participation needs to be enabled by governments, perhaps in the form of PPPs. Innovative solutions such as blending of finance need to be explored.

Energy access and attaining the SDGs: How do we speed up? What do we need to do to make sure researchers in different parts of the world can contribute to rural development?

Christina Moberg:

Researchers in developing countries are often involved in projects that are important for the development of their countries. Challenges include access to the scientific literature and to possibilities for international scientific collaboration. The latest drive to promote open access in research journals has had a mixed impact for researchers in less-wealthy countries and research institutes. While accessing literature is enabled, the authors of scientific articles are now required to pay the journals for publication, so the sharing of results is hampered.

Education is essential for working democracies, but societal changes are very slow. More research is required to optimise PPPs: how can the differences in timelines, perspectives, attitudes, and expectations be bridged?

Alexander Brummeler:

Improving access requires an increased recognition of the importance of working together.

To reach the last mile, the private sector should first determine how far it can go by itself, and enlist governments once a limit has been reached. Governments should in turn enable private sector participation by having consistent policies and providing clarity (as an example, the Rwandan government has indicated that 60% of the population will be served by off-grid energy solutions, which gives companies an idea of the room for activity they have).

More work is needed on proving different business models and modes of collaboration, and on accessing finances.

Joop Hazenberg:

It is easier to work with some governments than with others, and when conditions are difficult it

is better to work under the radar. In the EU, the telecom sector is highly regulated, and while the development potentials of the service are widely recognised, the costs (which include electricity requirements, grid extension, development, and support of services) are often not recognised to the same extent. At the same time, internet providers (such as Facebook and WhatsApp) are encroaching on the market. Making the transition from 2G to 5G will require an estimated US\$2 trillion. Therefore, it will be essential to work with partners to meet coverage obligations.

Another challenge is the time-lag between the development and deployment of new technology and legislation, which struggles to keep up. Regulation needs to be fast, light, and technology-neutral.

Models of PPPs are in their infancy, and understanding between actors needs to be improved.

Isolina Boto:

Agricultural services that cut out the role of intermediaries need to be promoted, by linking communities directly with providers and markets.

Drone technologies have great potential for improving agricultural productivity, for the effective mapping and management of resources, provision of inputs, and for minimising the impacts of pests and diseases. The flip side of these interventions is the sensitivity of data collected, which is and should remain the property of farmers. It is important to ensure such data are protected and that farmers retain control over it. Research and education in these areas is very important.

The dismantling of government agricultural extension services and the large number of unemployed agronomists is a concern. It is also, however, indicative of the fact that current education programmes do not provide the required skills to meet the needs of the markets, and therefore require a substantial overhaul. There are 10 million

young people entering the employment market each year in Africa, of whom only three million will get a job. Emigration to wealthier economies is recognised as a key challenge, but addressing it requires investing so that the youth have opportunities, including access to high-quality education, in their own communities.

Q&A open to all participants

The role of agriculture in developing countries was discussed, also with relation to urban migration and migration to developed countries. Agriculture in developing countries is practised by over 50% of the population, and therefore its development represents the only way of reaching the SDGs. Agriculture also benefits and supports other industries, and the benefits of non-farming economies to rural households should not be ignored. A critical question to address is how to keep the youth in their communities and active in agricultural production. This requires ensuring that farming is viewed as a profitable activity no longer associated with hard work, dirt, and poverty. The image of agriculture needs to be changed, to be promoted as a high-tech livelihood option with good financial prospects.

In response to questions as to whether smart cities require smart villages, and whether the delineation between urban and rural areas is useful, panel members considered that cities and rural communities are completely interdependent: for example, rural areas are the source of food production to sustain cities. All have to be equally smart. For the development of smart villages it is important that the export of goods to urban areas is not limited to raw commodities but includes value-addition of products by community members.

Asked whether frugal innovation is important and sufficiently recognised, panel members observed that frugal innovation is the focus of research and education institutions, but often forgotten is local knowledge in rural communities—especially in sectors such as agriculture and environment where traditional solutions may be more sustain-

able and adapted to the local social settings and environmental conditions. Frugal innovation is the drive for technology development at Azuri, which guides product design for the African market, often through reverse engineering. Key questions are “what is possible?” and “what is affordable?”

Energy efficiency in Africa is key, since no product can be made available without it, whereas developed countries can afford to be more wasteful in their use of energy. This forces innovation at the bottom of the pyramid, and often breakthroughs then make their way back to developed countries. Examples include ultrasound technology, developed for doctors in India at a fraction of the cost of available equipment, costing US\$500 instead of US\$5000. This technology is now also available in the EU and can be purchased by local doctors who could not afford the technology before, and this makes healthcare more affordable for everybody. Mobile money is another good example of an innovation developed for developing countries now making an increasing impact in wealthier countries.

Education should be opened up, and the private sector should be engaged. A good example of

innovative education solutions is the “Shamba shake-up” television programme in Kenya, where farmers are visited by a team of experts to suggest measures aimed at improving the productivity of their activities. Television can play an important role in a household, by connecting members to the wider society they belong to, by promoting role models (e.g. showing that domestic violence is unacceptable), and by improving productive enterprises.

The perspective of the communities concerned is critical and should never be forgotten. In research projects they should be active stakeholders, and it is important to ensure that communities benefit tangibly from the research activities they participate in. This needs to be balanced with achieving benefits for the wider community.

Impact is important, and in terms of attaining the SDGs it needs to be adequately quantified. As an example, a project in Malaysia (Kampung wifi) provides internet coverage to communities, but in practice this is limited to only 60 days a year and coincides with the time of national elections. Impacts and progress towards the SDGs need to be monitored rigorously.



John Holmes listens to the SDG priorities of policymakers from the European Commission, researchers, community leaders, and civil society.

PANEL SESSION 4: ROUNDTABLE DISCUSSION: MOVING TOGETHER TOWARDS THE SDGs

Moderator: John Holmes

Panel members:

- **Sally Nicholson, Head of Development Policy and Finance, WWF European Policy Office**
- **Franziska Bertz, DEVCO B.1 Human Rights, Gender, Democratic Governance**
- **Claudia Boldrini and Georgios Grapsas, DEVCO C.6 Sustainable Energy and Climate Change, European Commission**
- **Ben Campbell, Department of Anthropology, Durham University, UK and Low Carbon Energy Development Network (LCEDN) National Coordinator**
- **Ezra Uda, Penan Community Representative, P.A.D.E Penan Sarawak Organisation**
- **Iskander Kuntoadji, IBEKA Co-Founder**

The aim of the panel discussion was to bring policymakers, civil society, researchers / scientists, and the private sector together to have an open discussion about the SDGs / New European Consensus. Each panel member made a five-minute statement in response to the question “From your perspective, what is the one thing we must do to ensure the SDGs are achieved?”. A discussion in plenary followed.

Sally Nicholson (who also represented CONCORD, the development NGO network based in Brussels) responded to the question by encouraging the audience to think back to 2015, when the SDGs were first agreed. She emphasised that, unlike the Millennium Development Goals,

the SDGs are not north-south any more. It will be crucial to think about the EU’s responsibility. She noted that the agreement on the New European Consensus on Development is very exciting and is the first part of the implementation of the SDGs by the EU. The EU is in its comfort zone regarding policies for the SDGs in development cooperation, but it also needs to think carefully about implementation in Europe and by Europe.

If one thinks about the use of palm oil by the average European, there are major impacts in respect of deforestation, environmental degradation, etc., in many developing countries. It has consequences for land rights and use of resources; our consumption of seafood has implications for coastal fisheries and livelihoods of fishers in developing countries because of European imports.

She noted as well that it was exciting that at the Council of the EU, on the same day as the workshop, the General Affairs Council adopted a consensus regarding the SDGs, and the next step is having an overarching response. All European ministers are now calling on the European Commission for an overarching strategy. The New European Consensus has an exciting new approach but it will also be challenging in terms of its implementation. Everyone must remember that all EU member states and citizens have impacts on the achievement of the SDGs in developing countries through their actions – trade, investment policy, agricultural policy, etc.

Georgios Grapsos from the DG Development and Cooperation (DEVCO) unit focusing on sustainable energy and climate change noted that access to energy and SDG 7, which concerns “access to affordable, reliable, sustainable and modern energy for all” will be important going forward. Questions relating to gender and young people will have to be part of all their programmes, but

he commented that community ownership of EU programmes will be essential to achieving the SDGs. DEVCO receives many proposals, but they need to be deeply rooted in the villages and societies where they will be implemented. DEVCO's role is to try to understand whether the projects that are being proposed are sustainable and are what the people want. If this is not the case, these projects can turn out poorly and actually prevent future projects. A renewable energy project has to be sustainable and it has to serve people and meet their needs. Ownership also comes with synergies; projects can focus on a nexus, not only on an individual sector. Most importantly, one must try to avoid completely top-down projects.

Claudia Boldrini, also from DG DEVCO's unit focusing on sustainable energy and climate change, noted that she does not feel there is one thing to do regarding the SDGs but rather several important aspects. For example, an evidence-based approach to policymaking will be crucial. In terms of rural electrification, cost, timelines, the use of renewables, and the least costly approach will be fundamental to a country's policy. In addition, communication to citizens and awareness-raising are important. People need to understand clearly from the government when grid access will arrive and need to understand their options, such as solar home systems, mini-grids, etc. People need to be in position to make an informed decision. Within the European Commission, DG Research and Innovation and the Joint Research Centre can play important roles in evidence-based policymaking.

Ezra Uda spoke from his perspective as a Penan community representative. He said that there is an effort from the government toward the SDGs, but from observation it has its own priorities, and there is a political consideration. Often, governments and politicians decide what sort of assistance to give to the people; the decisions are made in their offices but not really checked at the grassroots level where people need as-

sistance. With this approach, there is a chance that the "assistance" may not really solve their problem. They need to hear from the grassroots people: the people in villages should participate in the process. For the EU, UN, private sector, etc. working towards the SDGs: they need to make a direct connection with the rural communities instead of only working through the government. It can be both, as his organisation works with the government. A direct partnership with the people is required at the grassroots level to solve their problems. Poverty, education, health, and energy access are still real problems, especially in rural areas.

Iskander Kuntoadji, Co-Founder of IBEKA, an Indonesian organisation that works closely with communities as well as young engineers, noted that he is not from a grassroots background like Ezra Uda. However, for about 75% of his life he has lived in grassroots areas without electricity. In his opinion, the existing methods of development do not take the best approach and do not make an impact on the community. The reason why is that the development paradigm focuses on the socio-economic, techno-economic, etc., which does not include the community itself. He proposed that to include the community a new approach will be needed, which he terms "techno-anthropologic". Through this approach, which takes people and technology as its centre, equality will be increased, there will be a space for the grassroots community, and people will be offered better opportunities to be involved in development. To close, he emphasised that the global development community should not only think about financial capital but also social capital.

Ben Campbell, Coordinator of the Low Carbon Energy for Development Network and Cultural Anthropologist at Durham University, suggested that the European gift for translation should be used. This means listening to everything that we are talking about today and using devolved methods to get ownership to people in communities. People cannot be forced from the top down to do

things, and villages hate being treated as another generic place of poverty. He cited two quotes: firstly, “The whole world is a village /The house of the gods collapsed, too”, and secondly, people in Nepal say: “the village is small, the words are big”. People do not need more techno-generic approaches. The development community needs to connect with the actual needs of rural communities, and practices that create resilience are needed. In Nepal post-earthquake, communities rebuilt houses through rotational exchange labour, which is also how they produce food on a subsistence basis. They have their own tried and true methods. There have been dramatic shifts in villages because of global developments. For example, many Nepalese men travel to Qatar or Malaysia to work, which means that the women are then left to look after babies, grandparents, and to grow food. We must connect with these realities to achieve the SDGs.

Franziska Bertz, who works in the DEVCO unit focusing on human rights, gender, and democratic governance, stated that the one thing we must do to achieve the SDGs is to take the commitment to a rights-based approach seriously. Development cooperation should enhance the capacities of duty bearers to meet their obligations and of rights holders to claim their rights. Human rights are fundamentally about human dignity and agency. By making the link to legal obligations and commitments, we empower rights holders and enhance accountability. But often human rights standards and principles have not informed development well enough. At the end of the 1990s, the Secretary General of the UN called for human rights to be mainstreamed. The UN agencies then developed a common understanding regarding a human rights-based approach to development, and many bilateral donors and CSOs have also undertaken important work in this respect.

According to the New European Consensus on Development, the EU and its member states will pursue a rights-based approach to the SDGs,

which is a very positive development. The 2030 Agenda expressly foresees that it must be implemented in a manner consistent with international law, including human rights law. Human rights underpin all the SDGs and there is a sophisticated human rights monitoring system at the international and regional levels, which incorporates civil society contributions and can inform SDG implementation.

Seeing through a human rights lens will help us identify who has been left behind and keep essential elements in mind: availability, quality, accessibility, non-discrimination, and cultural appropriateness. To come back to the example of indigenous peoples, many important contributions have come from the human rights system, such as recognition of self-identification and the principle of free, prior, and informed consent. There have been landmark cases that have protected their rights, and there is a UN special rapporteur on the rights of indigenous persons who has made important contributions. The main issue is: How to do maximum good and avoid unintended negative consequences of projects? For this, it is crucial to make people visible. Is the village smart—or is it the people? as an earlier speaker, Tariq Zaman, said.

To sum up the discussion, the moderator John Holmes noted that we must:

- get better at working across sectors;
- improve on community ownership of projects;
- take an evidence-based approach;
- take the “techno-anthropological” approach into account;
- figure out how to connect with actual grass-roots needs; and
- take a rights-based approach to development.

Q&A:

A lively Q&A session covered a wide range of topics, beginning with a question about gender as an enabler for development. The audience member noted that there are many countries where women and girls do not have the same rights and are not treated with equality. How do we deal with that dilemma and make progress on gender equality?

Almost all members of the panel replied to this question. Firstly, one must look at biases in techno-economic approaches, which by default work through male-dominated avenues. In Nepal, for example, biogas systems are mostly managed by women. But when development experts arrive, they speak to the men rather than the women about where to put the systems. We need to make sure we're talking to the right people. Secondly, it is important to be quiet and listen to the community by taking a longer-term approach. From the European Commission, they noted that a recent initiative had been launched to increase the role of women in the sustainable energy value chain through entrepreneurship. Energy can be a tool for women's economic empowerment. Moreover, when you target women, you must also involve men. A rights-based approach and gender equality are complementary.

In Indonesia, women are the primary household energy managers and are responsible for providing lighting and cooking in households. Women are often neglected in rural development, though they are often the "silent head of household" and have prominent positions in society. Gender needs to be in the mainstream of development. In Indonesia, only 20% of women had access to clean cooking. But the government adapted its policies to encourage LPG instead of kerosene. Now 60% have access to clean cooking, and the men feel comfortable because they don't have to be bothered any more with wood collection.

In terms of other enablers of development, transparency and access to information are central:

without these, communities and civil society organisations cannot hold governments to account. Big infrastructure projects often hide information and are rife with corruption. It is difficult because corruption is everywhere, and the donors do everything they can to avoid it. So we must be transparent about where the money is actually going. In terms of rural development, there has to be a lot of off-grid mini-grid projects. But in African infrastructure, there have been enormous megaprojects that are not going to serve the poor but instead serve corporations. Civil society and communities need to be able to hold governments to account.

One audience member raised the Global Covenant of Mayors and wondered if sharing information at the mayoral level could also help ensure that we meet the SDGs. DG DEVCO recently launched the extension of the Covenant of Mayors in sub-Saharan Africa. We should remember that most of the people of the world will end up living in cities, and therefore we need to reinforce cities' capacities, including secondary cities, to try to reduce the trend towards megacities. DG DEVCO is now in the third year of implementation of this initiative. It has carried out technical assistance and capacity building, but now it would like to bridge the gap to finance. DG DEVCO is trying to reach out to financiers to be able to get things done. There is no size limit, so it could possibly go to the village level as it develops further.

They have focused on medium and large cities at first for visibility and the biggest impact. One challenge that remains is that cities do not always have a mandate to cover all the sectors where they should be empowered and active. Cities and towns will need to be more empowered in all the relevant sectors.

Another audience member brought up clean cooking, which often receives less attention than electricity but nonetheless is crucial for improving health and decreasing deaths caused by indoor air pollution. She asked the DG DEVCO repre-

sentatives how they are addressing the need for improved cookstoves. The DG DEVCO representatives replied that there have been many endeavours to change things and make improvements, which have had positive results in some places. One important factor is that clean, efficient cookstoves must not be given away. The private sector is commercialising these products, and people are starting to buy them. In the area of cookstoves, it must be noted that cooking and food are linked to culture and habits, so the social and cultural perspectives are very important.

Another speaker noted that a barrier to the proliferation of cookstoves can be that it is very labour-intensive to do this type of research and to understand why a technologically feasible solution often does not work. An additional barrier is that fixed stoves are not as flexible if additional guests join a meal, for example. Another difficulty is that sometimes the private sector is not involved enough in public sector activities. Governments need to support the private sector and help with commercialisation and distribution. It is also important to educate and raise awareness regarding the ways of cooking that promote health, especially of young women, and protect the environment. We need governments, the private sector, and NGOs to help with this.

An audience member asked how we get the younger generation involved. The panel noted that we have to go one level lower to basic schooling and education, and we have to get them involved in the activities that we are talking about there. Young people embraced sustainable development in the late 1980s. Unfortunately, there is a big gap between schooling and youth clubs, projects, and other innovative ideas young people have. The enthusiasm is there and understanding is there, but then it suddenly disappears. Another panellist said that education has to be changed from the ground up. It focuses too much on logic; we don't touch empathy or the heart. We have to develop empathy and then connect it with logic.

To close the discussion, audience members asked how best to speed up progress towards the SDGs since 2030 is just around the corner.

According to panel members, we need a good paradigm that works first; somewhere we can visit and see these solutions on the ground, such as a smart village. More people need to be involved: development isn't only for the practitioners and policymakers. The private sector has a role to play in speeding up progress towards the SDGs.

In the work of IBEKA in Indonesia, it is clear that many young engineers want to join their programme each year, but they can only accept 100 out of 3,000-5,000 applicants each year. Young people graduating from university need to be encouraged to have a "we are" mindset that focuses on helping others. The more people who have this mindset, the faster we will go.

One panellist advocated removing the US\$500 billion annual subsidies on dirty fossil fuels, while another urged consensus building. She noted that people will be left behind if we do not build consensus and get more people on board. We need solutions that allow for real progress on equality rather than stress about deadlines.

Closing statement: Bernie Jones, Co-Leader Smart Villages Initiative

To close the workshop, Bernie Jones noted that the Smart Villages Initiative has held 40 workshops around the world, and the interconnectedness of the SDGs has been very apparent at each one. Holistic, bottom-up development that recognises the interconnectedness of the SDGs has been the centre of Smart Villages' work from the beginning. We should pick up on what DG DEVCO raised and begin to explicitly mainstream other SDGs in energy access initiatives. One project can deliver on two or three SDGs instead of only one.

In the next phase of the Smart Villages Initiative it is intended to implement this holistic model

and show how it can deliver more meaningful results—and provide metrics for key parameters such as gender, education, health, etc. Technology combined with community partnerships can change lives at the village level. If sustainable business models are developed for many of these aspects, the private sector can help to take them off the public sector's hands. The Smart Villages Initiative would like to encourage researchers in their laboratories to support real-world applications of their work.

Smart Villages would also like to see a thousand people like Ezra and give them a voice and a platform. The UN and the European Commission need to listen to their voices to ensure that projects are reaching the needs of those at the grassroots level.

Bernie Jones concluded by expressing a desire to develop partnerships with workshop partic-

ipants in taking the Smart Villages Initiative to the next stage.

Post-event Reception with Key Note Address by MEP Linda McAvan, Chair, Development Committee, European Parliament

Address by Linda McAvan

Linda McAvan, Chair of the European Parliament's Development Committee, addressed the attendees at the reception. She noted that she has known the Smart Villages Initiative for two years and thanked SVI for the invitation to speak. Linda McAvan expressed her support for this event, which focused on how to take the SDGs forward and achieve real progress. Given that the New European Consensus on Development was agreed in June 2017, she expressed her hope that progress towards the SDGs will be achieved in both developing countries and in Europe. She thanked attendees and expressed a willingness to work together with others to achieve the SDGs.



Linda McAvan, Chair of the European Parliament's Development Committee, takes a question from Smart Villages' Co-leader, Dr Bernie Jones

ANNEX 1: AGENDA

Smart Rural Development: the SDGs and the New European Consensus on Development

Hotel Leopold, 35 rue du Luxembourg, 1050 Brussels

20 June 2017

Draft agenda

8.00 Welcome and registration

9:00 Start of event: Welcome by Smart Villages Initiative and EASAC

Panel I: Ambitions and aims for the New European Consensus on Development / SDGs
Format: Keynote addresses

9:45-11:30am

- Keynote address, **Cristina Amaral**, Director, EU Liaison Office, FAO, United Nations
- Keynote address, **Karine Genty**, Deputy Head of Unit, C.6, Sustainable Energy and Climate Change, European Commission
- Keynote address, **Sarah Rinaldi**, Acting Head of Unit, B.1, Human rights, Gender, and Democratic Governance, European Commission
- Keynote address, **Natalia Alonso**, Deputy Director of Advocacy & Campaigns, Oxfam EU Advocacy Office
- Keynote address, **Simon Collings**, Energy 4 Impact, Director of Learning and Innovation
- Keynote address, **Andrew Bradley**, Director, Office of International IDEA to the EU
- Discussion

11.30 Coffee break

Panel II: Voices from the villages: What do people at the bottom of the pyramid need from the SDGs / New European Consensus?
Format: Individual presentations

11:45-1:00pm

- **Indonesia: Tri Mumpuni**, Executive Director, IBEKA

- **Latin America: Karl Kolmsee**, Smart Hydro Power / Alliance for Rural Electrification
- **West Africa: Louis Seck**, Country Manager, Energy 4 Impact; Mayor; Senegal's Former Renewable Energy Minister
- **South East Asia: Sarawak, Borneo, Malaysia: Tariq Zaman**, UNIMAS, and **Ezra Uda**, Penan Community Representative, P.A.D.E Penan Sarawak Organisation
- **East Africa** (via teleconference): **Andrew Mnzava**, Programme Manager for the Lighting Tanzania programme, International Finance Corporation
- Discussion

Lunch – 1:00pm-2:00pm

Panel III: Voices from the private sector, science, and civil society

Format: Moderated panel discussion

2:00pm-3:45pm

- **Isolina Boto**, Manager CTA (Technical Centre for Agricultural and Rural Cooperation)
- **Alexander Brummeler**, Finance Innovation, Azuri Technologies
- **Hanna Saarinen**, Investment in Agriculture Policy Advisor, Oxfam EU
- **Christina Moberg**, Vice-President, EASAC and President, Royal Swedish Academy of Sciences
- **Joop Hazenberg**, Senior Manager European Advocacy, GSMA
- **Rita Poppe**, Public Affairs, ENERGIA / Hivos
- Discussion

3.45pm-4.15pm Coffee break

Panel IV: Roundtable discussion: Moving together towards the SDGs

4.15pm-5.45pm

This will be a discussion during which policymakers, civil society, researchers / scientists, and the private sector can have an open discussion about the SDGs / New European Consensus.

Five-minute statements from a range of stakeholders in response to the question “From your perspective, what is the one thing we must do to ensure the SDGs are achieved?”, followed by a discussion in plenary:

- **Sally Nicholson**, Head of Development Policy and Finance, WWF European Policy Office
- **Franziska Bertz**, DEVCO B.1 Human Rights, Gender, Democratic Governance
- **Claudia Boldrini** and **Georgios Grapsas**, DEVCO C.6 Sustainable Energy and Climate Change, European Commission
- **Ben Campbell**, Department of Anthropology, Durham University, UK
- **Ezra Uda**, Penan Community Representative, P.A.D.E Penan Sarawak Organisation
- **Iskander Kuntoadji**, IBEKA Co-Founder

6.00pm-7.00pm

Post-event Reception:

With Keynote Address from MEP Linda McAvan, Chair of the European Parliament’s Development Committee

ANNEX 2: LIST OF PARTICIPANTS

List of participants

Natalia	Alonso	Oxfam EU Advocacy Office
Cristina	Amaral	FAO, United Nations
Franziska	Bertz	DEVCO, European Commission
Andrew	Bradley	International IDEA
Alexander	Brummeler	Azuri Technologies
Ben	Campbell	Durham University / LCEDN
Simon	Collings	Energy 4 Impact
Christiane	Diehl	EASAC
Karine	Genty	DEVCO, European Commission
Isolina	Boto	CTA
Joop	Hazenberg	GSMA
Karl	Kolmsee	Smart Hydro Power / Alliance for Rural Electrification
Iskander	Kuntoadji	IBEKA - People Centred Economic and Business Institute
Linda	McAvan	European Parliament
Andrew	Mnzava	International Finance Corporation
Christina	Moberg	EASAC
Tri	Mumpuni	IBEKA - People Centred Economic and Business Institute
Sally	Nicholson	WWF / CONCORD
Rita	Poppe	Hivos
Sarah	Rinaldi	DEVCO, European Commission
Hanna	Saarinen	Oxfam EU
Louis	Seck	Energy 4 Impact / Former Renewable Energy Minister / Mayor
Ezra	Uda	Penan Community Representative, P.A.D.E Penan Sarawak
Tariq	Zaman	Universiti Malaysia Sarawak (UNIMAS)
Claudia	Boldrini	DEVCO, European Commission
Georgios	Grapsas	DEVCO, European Commission

Victor	Alvarez Alhambra	Gobierno Regional de Castilla-La Mancha
Giulia	Barnaba	European Commission
Claudia	Canales	Smart Villages
Felipe	Cavallini	University of Gent
Karel	Dejonghe	FAO
Christian	Engel	Die Landesregierung Nordrhein-Westfalen
Oliver	Fox	EEAS
Peter	Fritz	Leopoldina
William	Gillett	EASAC
Brian	Heap	Smart Villages
Emma	Hesselink	International Institute of Social Studies
John	Holmes	Smart Villages
Molly	Hurley-Dépret	Smart Villages
Jens	Jaeger	Alliance for Rural Electrification
Bernie	Jones	Smart Villages
Sebastian	Juncu	European Commission
Philip Bob	Jusu	African Union
Yanti	Kusumanto	TYK Research and Action Consulting
Jacopo	Feslikenian	Open Fabric
Terry	Mrakovic	
Carla	Puglia	International Science Program, Uppsala University
Elisabeth	Rachlew	KVA, Sweden
Eric	Reinhard	Microcom Conseil Belgium
Rebecca	Rhlalou	The Council of European Municipalities and Regions (CEMR)
Stefania	Sellitti	European Commission
Julia	Terrapon-Pfaff	Wuppertal Institute
Ernst	van Groningen	International Science Program, Uppsala University



SMART VILLAGES

New thinking for off-grid communities worldwide

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