



**ReCAP**  
Research for Community Access Partnership



# Promotion of Sustainable Rural Access in the implementation of the 2030 Global Agenda on Sustainable Development

Key Messages Consultation Analysis



Partnership on Sustainable, Low Carbon Transport (SLoCaT)

*KMN2089A*

**March 2017**



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## Abstract

A set of key messages on rural transport and Sustainable Development Goals (SDGs) is being developed to serve as the cornerstone of advocacy materials used by the Partnership on Sustainable, Low Carbon Transport in various media channels, publications, and promotional materials on outreach on rural transport in the context of the project, “Promotion of Sustainable Rural Access in the implementation of the 2030 Global Agenda on Sustainable Development.”

A consultation process on the key messages on rural transport and SDGs was ran in January and February 2017 with the aim to find out which themes and topics should be prioritized in the advocacy activities and to identify key elements that have not yet been included. The consultation was conducted via two approaches: interviews with selected experts from the rural transport sector and an online survey.

This document gives an analysis of the results of the consultation process and proposes the final list of five key messages on rural transport and SDGs.

## Key words

Rural transport, sustainable development goals, financing, rural infrastructure, indicators, sustainable transport, advocacy, rural access

## **RESEACH FOR COMMUNITY ACCESS PARTNERSHIP (ReCAP)** *Safe and sustainable transport for rural communities*

ReCAP is a research programme, funded by UK Aid, with the aim of promoting safe and sustainable transport for rural communities in Africa and Asia. ReCAP comprises the Africa Community Access Partnership (AfCAP) and the Asia Community Access Partnership (AsCAP). These partnerships support knowledge sharing between participating countries in order to enhance the uptake of low cost, proven solutions for rural access that maximise the use of local resources. The ReCAP programme is managed by Cardno Emerging Markets (UK) Ltd.

**See [www.research4cap.org](http://www.research4cap.org)**

## Acronyms

ADB	Asian Development Banks
AfDB	African Development Bank
DFID	Department for International Development
MDB	Multilateral Development Bank
ReCAP	Research for Community Assess Partnership
SDG	Sustainable Development Goals
SLoCaT	Partnership on Sustainable, Low Carbon Transport
UN	United Nations

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## 1 ReCAP-SLoCaT Project on Rural Transport

The Partnership on Sustainable, Low Carbon Transport (SLoCaT)<sup>1</sup> is promoting the improvement of rural transport in partnership with, and support of the UK Aid-funded Research for Community Access Partnership (ReCAP).<sup>2</sup> A new joint project, “Promotion of Sustainable Rural Access in the implementation of the 2030 Global Agenda on Sustainable Development,”<sup>3</sup> began implementation in November 2016 with the objective to further promote sustainable rural access as a viable component of the implementation strategies for achieving the Sustainable Development Goals (SDGs) and to ensure its inclusion in the high-level, multi-lateral development discourse on sustainable transport and rural development. The work of the project is conducted under three work streams:

1. Outreach and Advocacy
2. Global and Regional Dialogues
3. Operationalization of SDGs

A set of key messages on rural transport and SDGs is being developed to serve as the cornerstone of advocacy materials used by the SLoCaT Partnership in various media channels, publications, and promotional materials on outreach on rural transport in the context of the ongoing ReCAP project.

## 2 Consultation Objective and Methodology

### 2.1 Objective

A consultation process on the key messages on rural transport and SDGs ran from January to February 2017 with the aim to determine which themes and topics should be prioritized in the SLoCaT Partnership’s advocacy activities on rural transport. The consultation was conducted via two approaches: interviews with selected experts from the rural transport sector and an online survey.

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<sup>1</sup> Partnership on Sustainable, Low Carbon Transport. No date. Homepage. [www.slocat.net](http://www.slocat.net) (Accessed March 7, 2017)

<sup>2</sup> Research for Community Access Partnership. No date. Homepage. <http://www.research4cap.org> (Accessed March 7, 2017)

<sup>3</sup> Partnership on Sustainable, Low Carbon Transport. 2017. Promotion of Sustainable Rural Access in the implementation of the 2030 Global Agenda on Sustainable Development. [www.slocat.net/ruraltransport](http://www.slocat.net/ruraltransport) (Accessed March 7, 2017)

### **Box 1: Rural Transport and the 2030 Agenda for Sustainable Development**

On 1 January 2016, the 2030 Agenda for Sustainable Development, with its 17 Sustainable Development Goals adopted by world leaders in September 2015, officially came into force. With these new SDGs that universally apply to all, countries will mobilize efforts to end all forms of poverty, fight inequalities and tackle climate change, while ensuring that no one is left behind.

Rural Transport has a unique position in the 2030 Agenda for Sustainable Development. Although there is no dedicated target on rural transport, there is a considerable linkage between and contribution of rural transport to SDGs 1 (No Poverty), 2 (Zero Hunger), 3 (Good Health and Well-being), 4 (Quality Education), 5 (Gender Equality), 8 (Decent Work and Economic Growth), 9 (Industry, Innovation and Infrastructure), 12 (Responsible Consumption and Production) and 13 (Climate Action). While there is no dedicated Rural Transport target, there is a specific proposed indicator for rural access under Target 9.1 in the list by the International Advisory Expert Group on the Sustainable Development Goals. This indicator, “Proportion of the rural population who live within 2 km of an all-season road”, builds on existing methodologies for measuring rural access and has been the topic of dedicated research by the World Bank, sponsored by the UKAID funded Research for Community Access Partnership.

A long list of suggested topics on rural transport and SDGs, categorized under five themes, was developed by the SLoCaT Partnership and two consultants, Rob Petts and Niklas Sieber. The long list was reviewed by the ReCAP Project Management Unit as part of the inception report and then presented to the survey respondents and selected rural transport experts prior to their interviews.

#### **Theme 1: Interaction between rural transport and Development**

- 1.1 Suggested Topic: National Growth Strategies
- 1.2 Suggested Topic: Poverty alleviation
- 1.3 Suggested Topic: Zero hunger and food security

#### **Theme 2: Transport as precondition for rural access**

- 2.1 Suggested Topic: Access to markets
- 2.2 Suggested Topic: Access to essential services
- 2.3 Suggested Topic: Inclusive transport – elderly, disabled people, gender equality
- 2.4 Suggested Topic: Sustainable rural transport services

#### **Theme 3: Financing and maintaining rural roads**

- 3.1 Suggested Topic: Improve maintenance of existing networks
- 3.2 Suggested Topic: Financing and Resourcing Rural Transport Infrastructure
- 3.3 Suggested Topic: Improved Asset Management

#### **Theme 4: Rural transport and climate change adaptation**

- 4.1 Suggested Topic: Ensure sustained use of available limited rural transport resources

## Theme 5: Measuring Rural Transport

### 5.1 Suggested Topic: Improving rural Access requires better measurement of access

#### Box 2: Outreach Summary

The survey on Key Messages on Rural Transport and Sustainable Development Goals was open for response from February 3 to February 15, 2017. The survey was shared with a wide range of stakeholders in the rural transport/ general transport community via the following channels:

- **Outreach via SLoCaT member network:** The survey was shared with 250+ subscribers from 90+ transport organizations within the SLoCaT member network.
- **Twitter:** Tweets to promote the survey were posted 9 times, tagging 30 different relevant Twitter accounts for organizations and individuals, such as ReCAP, DFID Research, ADB Transport, AfDB, International Road Federation, IFRTD Network, World Bank Transport, World Economic Forum, the Donor Platform, World Rural Forum, Sri Sri Rural Program, IFAD, Rural Action, Uganda Rural Fund, Rural Finance and Investment Learning Centre, and Rural Reporters. These tweets were retweeted 16 times, reaching thousands of Twitter users through these organizations' respective networks.
- **LinkedIn:** An article and three updates on survey were posted via 12 LinkedIn discussion groups, including ReCAP, Devex-International Development, Rural Development Group, Rural and Remote Community Broadband Rural and Remote Community Broadband, ADB Consultants Group, Rural Community Development Planners, International Road Federation, Professionals Network (CESPN), ASIA Sustainability Network, the Africa Transport Policy Program and the account of Cornie Huizenga. These networks as a whole cover more than 110,000 professionals in the transport and development industry.
- **Other email networks:** The survey announcement was forwarded to other networks of transport experts, including ReCAP, GIZ's Namibia unit, PIARC World Road Association, and 527 experts from four special interest groups of the World Conference on Transport Research Society. Special request was made to the UNCRD to forward the survey announcement to 60+ registered participants of the pre-event on rural transport in the upcoming EST Forum in Vientiane, Lao PDR. The survey was also forwarded to a large network of professionals in the sustainable development process via the Sustainable Development Announcement List Digest.

## 2.2 Respondents Profiles

Nine senior experts were interviewed in the consultation on the key messages:

Table 1. Rural Transport Expert Interviewed

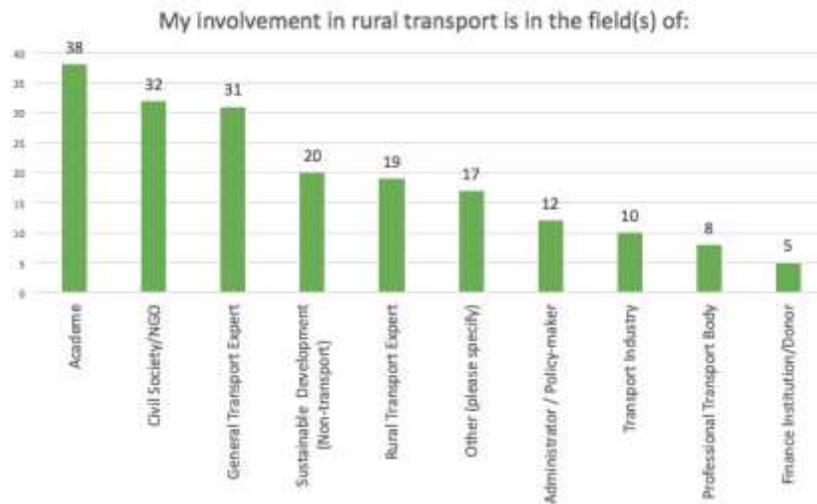
Name	Organization
David Salter	Asian Development Bank
Jasper Cook	Research Community for Access Partnership
Joseph Haule	Tanzanian Road Fund
Martin Snaith	University of Birmingham
Michael Burrow	University of Birmingham

<b>Mike Pinard</b>	Infra Africa, Botswana
<b>Peter Sturmheit</b>	African Development Bank
<b>Reiner Koblo</b>	KfW Development Bank
<b>Reiner Kuhnle</b>	GITEC Consult GMBH

For the online survey, 125 responses have been received from a wide range of stakeholders. Among the 125 survey respondents, 31 respondents indicate they are general transport experts, 19 respondents indicate they are rural transport expert, and 12 respondents identify themselves as policy-makers/administrators (Figure 1).

A majority of respondents are from academic institutions, civil society, and the sustainable development field.

A smaller number of respondents are from finance institutions, professional transport bodies and the general transport industry.



**Figure 1. Profiles of survey respondents (no. of responses)**

The largest number of respondents have worked on rural transport in the Asia Pacific region (44) and the Sub-Saharan Africa region (36). 16 respondents have worked on rural transport in Europe, and 14 have worked in Latin America. 14 respondents have also worked on the global level and the least amount of respondents have worked in North America and North Africa (Figure 2).

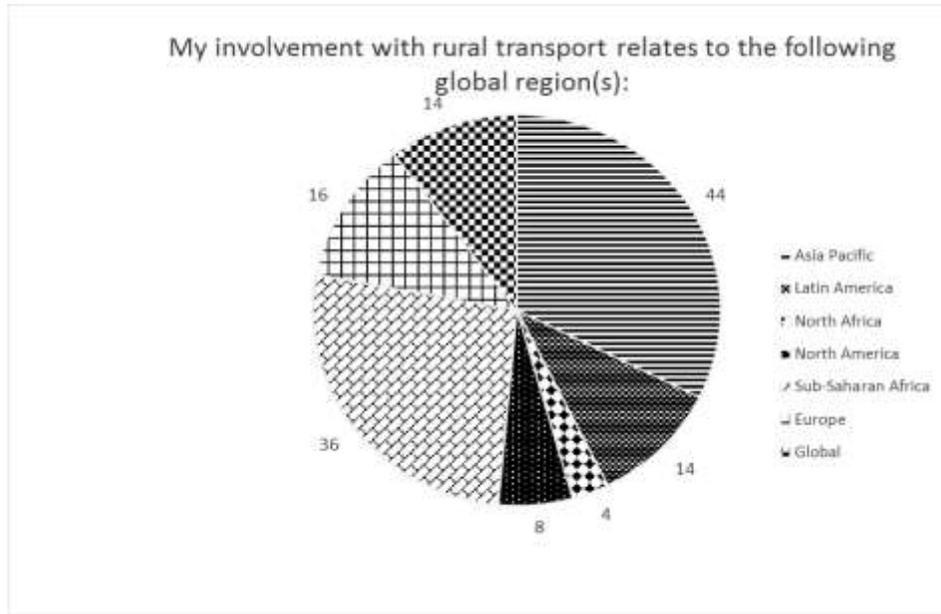


Figure 2. Geographic focus of respondents' involvement in rural transport

Although only 19 respondents have identified themselves as rural transport experts, more than 40% of the total respondents indicate that they are “very familiar” with rural transport and have been working specifically on the topic for more than five years. 30% of respondents are “somewhat familiar” with the topic and rural transport is one of the areas that they work on. 29% of respondents are “not familiar” with rural transport and only work on transport in a general context (Figure 3).

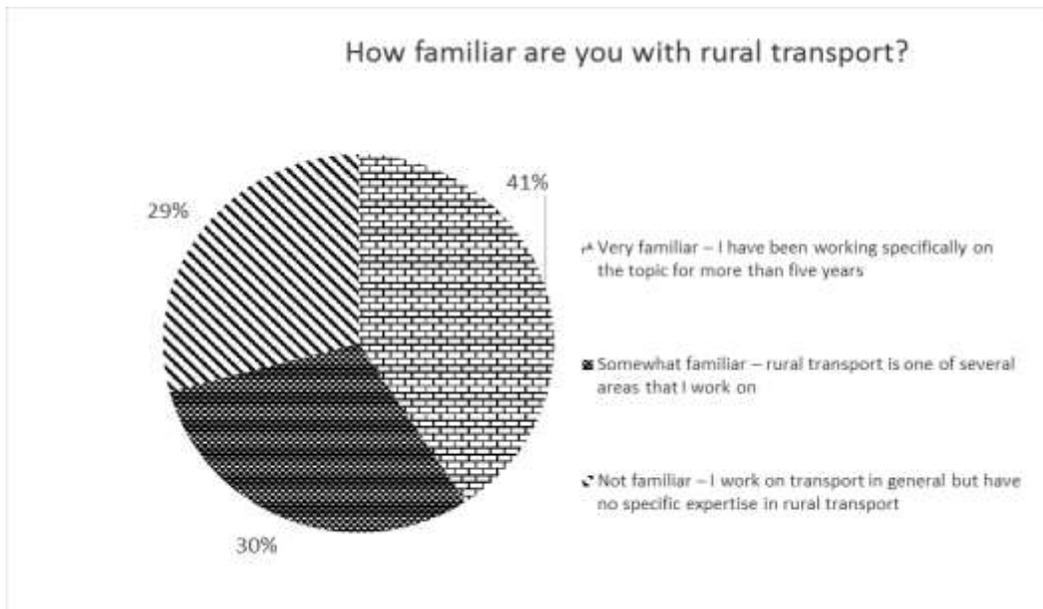


Figure 3. Familiarity with rural transport

### 3 Comparing and Harmonizing Results from Expert Interviews and Online Survey

Feedback received from the expert interviews and online survey have shown consensus to include a number of issues but at the same time have shown no clear consensus to prioritize certain themes. This section presents a summary of the converging and diverging feedback.

A detailed summary of feedback of respondents to each survey question can be found under Annex A. Summaries of expert interviews conducted are presented under Annex B and Annex C.

#### 3.1 Converging feedback from expert interviews and online survey

There is consensus between survey and expert interviews that the following survey themes should be included within key messages (albeit in modified form):

- Interaction between Rural Transport and Development (as embodied in SDGs);
- Transport as a pre-condition for Rural Access
- The need for stronger political will and action particularly on the local (government) level as the key to success in rural transport infrastructure maintenance is highlighted by interviews from experts as well as a number of comments from survey respondents. Linked to this, the emphasis on greater participation from local communities and effective use of local resources is a recurring suggestion made by survey respondents as well as expert interviews.
- The suggested theme “Measuring Rural Transport” has not been prioritized based on feedback from expert interviews and survey respondents.

#### 3.2 Diverging feedback from expert interviews and online survey

No clear consensus was evident on the following:

- Suggested topic on Zero Hunger and Food Security received higher priority by expert interviews than from survey respondents (only 25% of respondents think it should be included in the final list);
- Climate change adaptation comes out more strongly from expert interviews than from the online survey (least amount of survey respondents think this topic should be prioritized -only 15%);
- The Suggested topic 3.1 on Improved maintenance of existing networks and suggested topic 3.3 improved asset management have received relatively less attention among online survey respondents, with only 33% and 15% of survey respondents respectively think they should be included in the final list of key messages. However, these topics have been emphasized quite strongly during the expert interviews.
- Suggested topic 3.2 on Financing and Resourcing Rural Transport Infrastructure is prioritized by the highest number of survey respondents (nearly 50%) to be included in the final list of key messages. However, financing has not been highlighted as a stand-alone topic based on feedback from expert interviews.

### 3.3 Proposal to harmonize feedback from expert interviews and survey

It is proposed that the final list of key messages could include:

- Interaction between Rural Transport and Development (as embodied in SDGs);
- Transport as pre-condition for Rural Access (to services and markets)
- Include financing as one of the key messages in the final list with linkages to interviewed experts' comment on stronger political will and greater transparency, possibly linked with maintenance of rural transport infrastructure and put more emphasis on the need for stronger political will and action by the local government and community;
- Local solutions to local problems (resilience can be incorporated here).

This leads to the following proposed list of Key Messages:

1. Improved Rural Transport Drives Sustainable Rural Development and National Growth
2. Better Rural Transport is Key for Food Security and Zero Hunger
3. Poor Rural Transport Condemns the Poor to Stay Disconnected and Poor
4. **Additional money AND commitment is needed to build and maintain rural road networks and develop sustainable rural transport services**
5. Better Rural Transport Calls for Local Solutions for Local Problems

#### 3.3.1 SDGs to be targeted

SDGs targeted through key messages on Rural Transport

- *SDG 1 (No Poverty)*
- *SDG 2 (Zero Hunger)*
- *SDG 3 (Health)*
- *SDG 4 (Education)*
- *SDG 5 (Gender)*
- *SDG 6 (Clean Water and Sanitation)*
- *SDG 8 (Decent work and Economic Growth)*
- *SDG 9 (Industry, Innovation and Infrastructure)*
- *SDG 11 (Sustainable Cities and Communities)*
- *SDG 13 (Climate Action)*

#### 3.3.2 Target Audiences

The Key Messages will be targeted principally at high level decision makers; both within the Rural Transport Sector AND the other sectors working towards achievement of the SDGs. However, it is recommended that the Key Messages must be succinct and “punchy”, and understood by all stakeholder groups and the media (traditional and social) to encourage identification with, and support for, their implementation at all levels.

#### 3.3.3 Key Messages consolidated from the Consultation Process

**Message 1.1: Improved Rural Transport Drives Sustainable Rural Development and National Growth**

*Linkage to SDG 1 (No Poverty), SDG 3 (Health), SDG 5 (Gender Equality), and SDG 8 (Decent Work and Economic Growth)*

**Rationale:**

Rationale: Rural development is not only a question of social equity, but is also crucial for national economic growth. Good rural road infrastructure and services promote connectivity and social cohesion. They drive agriculture, trade, commerce and industry as well as accessibility and mobility to knowledge, jobs, health, education, and the social and economic facilities necessary to counteract poverty and social exclusion. Countries cannot develop socially and economically without efficient, affordable, sustainable and appropriate climate resilient urban, inter-urban and rural transport infrastructure and services. Rural transport facilities and services are indispensable for unlocking the country's growth and equity potential.

Political, operational and community structures, mechanisms and policy-makers must develop the necessary will and cooperation to identify and resolve the rural transport access and mobility challenges. New cross-sector consultation and collaboration fora will be necessary on the local, national, and regional level. Cooperation between ALL stakeholders is required to develop the policy framework, problem-solving methods, strategies, delivery arrangements and capacity, and resource mobilization to ensure mutually beneficial and sustainable transport infrastructure and services that are safe, appropriate, affordable, resilient and 'fit for purpose'.

**Message 1.2: Better Rural Transport is Key for Food Security and Zero Hunger**

*Linkage to SDG 2 (Zero Hunger and Food Security) and SDG 8 (Decent work and Economic Growth)*

Rationale: Improved agricultural production can reduce hunger by supplying both urban and rural areas with "nutritious and sufficient food all year round. Improving rural access can lead to lower costs for farm inputs and lower transport costs for marketed outputs (e.g. first mile transport), thus increasing agricultural production. Improvement in rural transport will lead to better knowledge application for good practice, reduced crop wastage, higher yields, enhanced production and development of local agro-industry which can improve food security. It will also promote rural employment and economic development with more self-reliant rural communities.

**Theme 2: Access to markets**

**Message 2.1 Poor Rural Transport Condemns the Poor to Stay Disconnected and Poor**

*Linkage to SDG 1 (No Poverty), SDG 4 (Gender Equality), and SDG 8 (Decent work and Economic Growth)*

Rationale: Rural populations are disproportionately poor and subsistence economy is often their salient feature: many farmers are not producing for markets and thus have little monetary income. Access to markets and employment opportunities through better rural transport infrastructure and services is an essential pre-condition to generate rural income and thus reduce poverty. Rural poor benefit significantly from rural infrastructure investments and reduction in travel time. Smoother and more efficient motorized road transport can facilitate a shift to higher-value perishable products. Households, both poor and non-poor, can substantially increase the share of their income coming from off-farm employment. Access to markets and to agricultural inputs determines agricultural production. Only the expectation and achievement of adequate and sustained all-year access will encourage and enable farmers to optimise their production and thus generate rural growth. The "first mile" in taking agricultural products to markets often poses

the largest challenge in terms of physical access, costs and reliability.

Since ownership of private vehicles is scarce in rural areas, transport services provide the only way to travel longer distances. Action and regulation on rural transport are needed to facilitate reliable, safe, and affordable transport services for passengers and freight to ensure the full use of appropriate and sustainable rural transport infrastructure.

### Theme 3 Financing and maintaining rural roads

#### **Message 3.1: Additional money AND commitment is needed to build and maintain rural road networks and develop sustainable rural transport services**

*Linkage to SDG 9 (Industry, Innovation and Infrastructure)*

Rationale: Current financing approaches are not adequate to achieve required affordable and sustainable expansion of rural transport as well as the maintenance of existing rural road networks. Existing funding sources need to be expanded and new funding sources need to be developed, piloted and implemented not only for building but also for managing and maintaining the road assets in whole-life terms

Additional funding is needed for better management and maintenance of existing rural road networks, which should be funded over their whole-life if their effectiveness is to be truly sustainable. Rural transport infrastructure is the largest publicly owned investment in many developing regions. However, in the recent past, generally poor management has led to widespread loss of asset value and impaired all-season access for many communities, resulting in increased road user costs, reduced access to markets and services, and disconnection from economic and social opportunities. To address this, it is necessary to introduce and embed an asset management culture and life cycle cost management practices. This will substantially increase cost-effectiveness of the available resources and transport provision, and encourage investments in rural activities and communities.

Dedicated political will at all levels is a pre-condition for success both in the case of additional funding for new infrastructure as well as for improved maintenance. Sustainability of rural transport requires that political will to prioritize maintenance, followed by rehabilitation, and new construction.

### Theme 4: Local Ownership

#### **Message 4.1 Better Rural Transport Calls for Local Solutions for Local Problems**

*Linkage to: SDG 1 (No Poverty), SDG 2 (Zero Hunger), SDG 3 (Health), SDG 4 (Education), SDG 5 (Gender), SDG 6 (Clean Water and Sanitation), SDG 8 (Decent work and Economic Growth), SDG 9 (Industry, Innovation and Infrastructure), SDG 11 (Sustainable Cities and Communities), and SDG 13 (Climate Action)*

Rationale:

Rural access challenges require local resource-based solutions that are compatible with the local road sectors and conditions. Local policies, strategies and action plans need to be developed to ensure that access and affordable transport services are available to ALL rural community members, including women, children, elderly, disabled and any other disadvantaged groups. Local solutions must be developed to optimize and mobilize the use of local knowledge, skills, innovation, human resources, enterprises, community structures, materials and other physical resources for rural transport development.

Planning issues regarding whether roads or other facilities are the optimum investment need to be addressed. Existing funding sources and arrangements need to be reviewed and new funding instruments explored, piloted and mobilized. Appropriately straightforward implementation arrangement options; by contract, work force or community methods should involve transparent and appropriate, uncomplicated documentation, technical guidance and quality assurance, and be output orientated. Appropriate technology approaches should effectively mobilise local human resources, enterprises, production, communities and organisations where suitable..

Local approaches are key to recognise and counter climate threats with enhanced deployment of the available resources through a better balance of design, construction and maintenance issues and factors. Effective, localised, asset management systems will allow the available limited resources to be targeted, in support of better resilience of rural transport systems,.

After finalization and agreement of the Key Messages, it is proposed that support documentation for each Key Message is prepared, along with strategies on how to promote and secure engagement from the stakeholders for their adoption and realization. We will focus on goals and means but key messages will need to be formulated in a manner that they can act as a stand-alone statement

## 4 Dissemination of Survey Results and Key Messages

The consultation process has successfully engaged a wide range of relevant stakeholders in the rural transport community and encouraged them to participate in our advocacy and outreach activities for these key messages.. It has also successfully increased awareness and recognition among these key players.

### 4.1 Interest to Receive Survey Results

The majority of respondents (more than 70%) are interested to receive a summary of the survey results (Figure 19).

Do you want to receive a summary of the survey results?

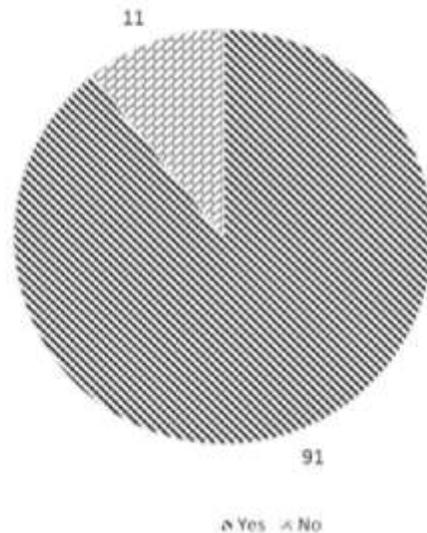
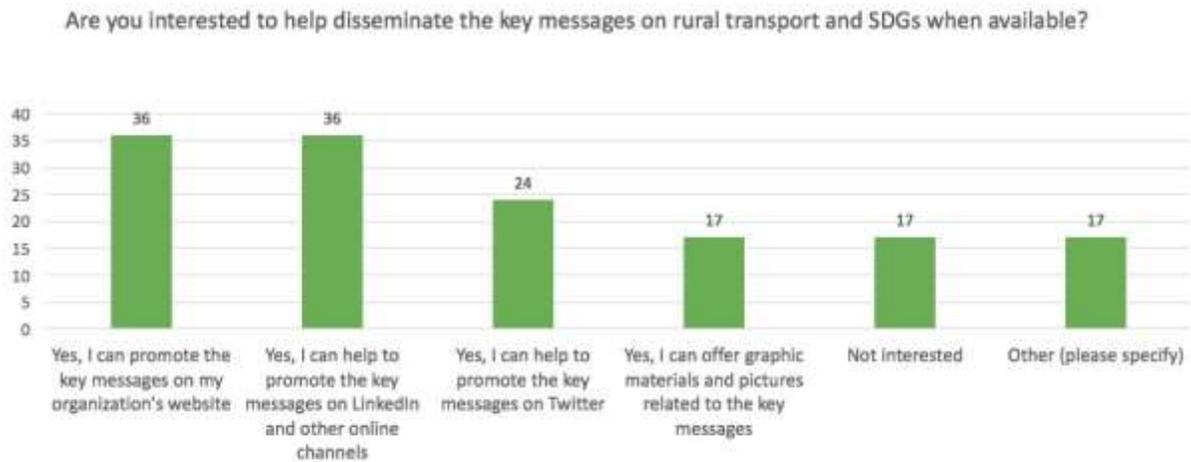


Figure 4. Interest of respondents in receiving survey analysis

These respondents come from a wide range of background, including the Multilateral Development Banks (e.g. World Bank, Inter-American Development Bank), government agencies (e.g. Pakistan Ministry of Climate Change, Afghanistan National Environmental Protection Agency, Cebu City Government), transport agencies (e.g. Roads Authority Malawi), transport institute (e.g. iCET, IPTE Vietnam), Non-government Organizations (NGO) (e.g. Institute for Transportation and Development Planning), academia (e.g. Tongji University, China, University of Tokyo), and press (e.g. Green Echoes). A list of information of interested respondents is included in Annex II.

### 4.2 Interest in disseminating key messages

The majority of respondents also indicate desire to further engage in the promotion of rural transport and SDGs through various ways (Figure 20):



**Figure 5. Interest to disseminate key messages**

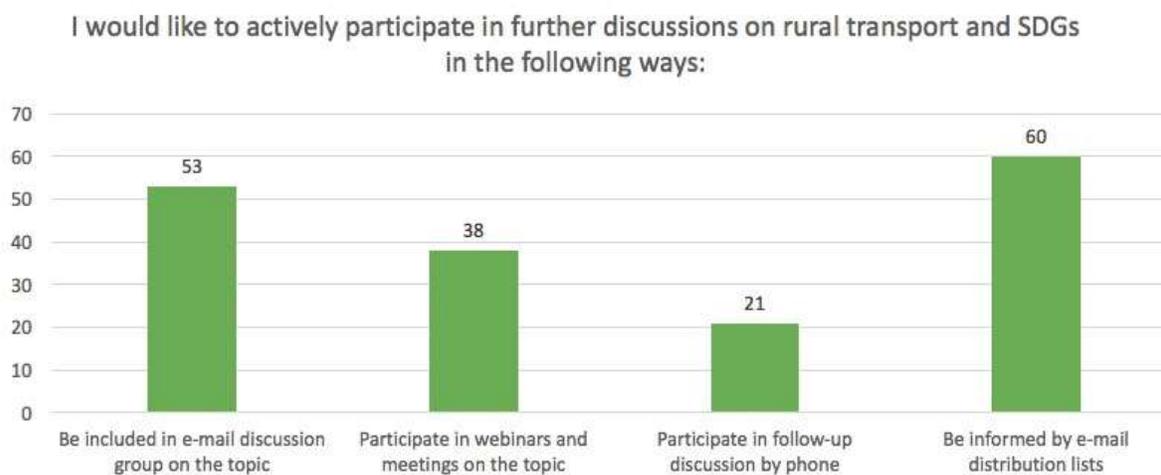
- **Website:** 36 respondents (nearly 30%) offered to help the promotion of key messages on their organization’s websites, including representatives from the World Bank, government agencies, transport institute, foundation, consulting companies, tech company, and academe.
- **LinkedIn and other online channels:** 36 respondents (nearly 30%) are willing to promote the key messages via their professional networks on LinkedIn and other online channels. A number of them are the respondents who are willing to promote the key messages on their organizations’ websites. In addition, individuals from the Asian Development Bank, the Cebu City government, Zimbabwe United Naitons Association, and a number of universities are included.
- **Twitter:** 24 respondents (20%) indicate they can participate via Twitter. These are individuals from the transport sector; from development agencies; from the MDB; from think tank as well as the academe.
- **Offering graphic materials:** 17 respondents (14%) offer to help by providing graphic materials and pictures related to the key messages. Most of them are the respondents who can promote the key messages on Twitter, in addition to other individuals from the media, forum, and NGO.

Some respondents indicate that they can advocate for rural transport in other ways, including:

- Increase awareness on rural transport and SDG to fellow planners both at the central agencies and the local government;
- Include specific topics in approach and methodology proposals for transport development;
- Publish the key messages on newspaper and publication;
- Spread the word to other experts on rural transport.

## 5 Future Participation in Project

Many survey respondents are also interested in participate in further discussion on rural transport and SDGs (Figure 21):



**Figure 6. Interest to participate in further discussion**

- **E-mail distribution list:** 60 respondents (nearly 50%) are interested to be informed by e-mail distribution list. These respondents cover a wide range of organizations in different sectors, such as rail, road, Forestry and Biodiversity, the public sector, and private sector.
- **Email discussion group:** 53 respondents (more than 40%) are interested to be included in email discussion group on the topic. These respondents are from the MDB, government agencies, road authorities and initiatives, transport institute, NGOs, academe, press, and accounting firm.
- **Webinars and meetings:** 38 respondents (30%) are interested to participate in webinars and meetings. A lot of individuals are from institutes and universities. Others are from UN organizations, MDB, and development agencies.
- **Follow-up discussion by phone:** 21 respondents (17%) are willing to participate in follow-up discussion by phone, including respondents from the road sector, NGOs, consulting, and other organizations.

## Annex A: Feedback from Survey Respondents on Themes and Suggested Topics

### Feedback on themes

Five themes on rural transport and SDGs were presented to respondents to rate their importance to be included in our advocacy activities. 70 to 75 (more than 55%) survey respondents think it is very important to promote Theme 1 (Interaction between Rural Transport and Development), Theme 2 (Transport as Precondition for Rural Access), and Theme 3 (Financing and Maintaining Rural Roads). 40 to 45 (more than 30%) respondents think these three themes are “quite important.” Less than 1% of respondents hold neutral views on them or think they are not very important; no respondents think these three themes are unimportant to our advocacy activities (Figure 4).

Compared to theme 1, 2, and 3, around 30% of survey respondents (35 to 40) think that it is very important to promote Theme 4 (Rural Transport and Climate Change Adaptation) and Theme 5

(Measuring Rural Transport). Slightly more respondents (about 40%) think they are “quite important” and nearly 30 respondents (24%) are neutral on this. 4% of respondents think Theme 5 is not very important. 6% of respondents think Theme 4 is not very important and 4% think the theme is unimportant to be included in the advocacy activity.

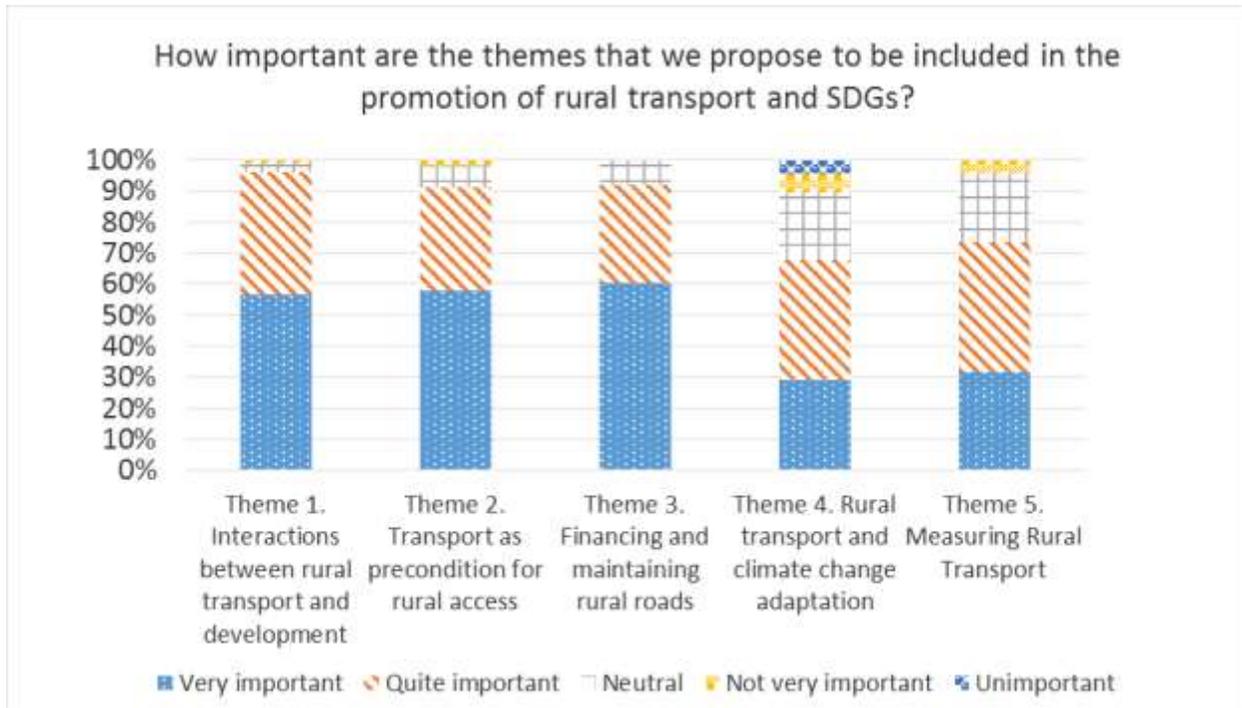
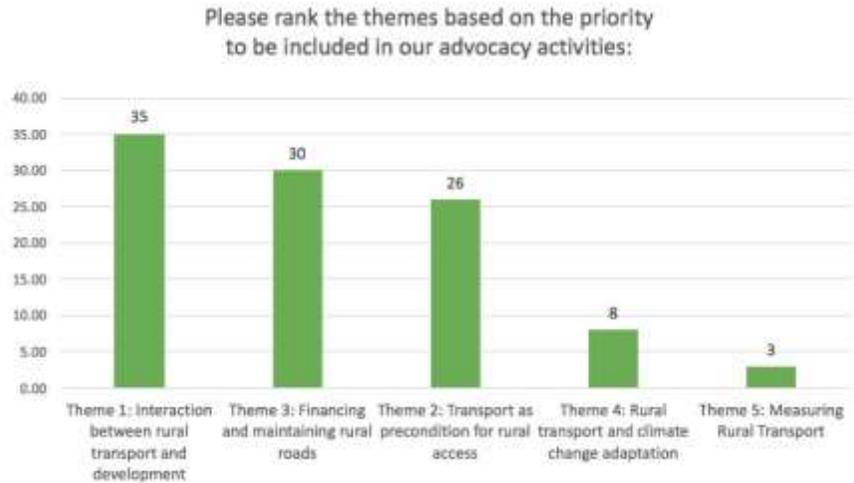


Figure 7. Importance of themes on rural transport

In terms of ranking, Theme 1 has received the highest number of votes with 35 respondents (28%) thinking that it should be included in our advocacy activities; 26 respondents (21%) and 30 respondents (24%) have put Theme 2 and Theme 3 on their top priority respectively. 8 respondents (6%) have ranked Theme 4 as number one, and only 3 respondents (2%) think Theme 5 should be prioritized over other themes (Figure 5).



**Figure 8. Ranking of themes on rural transport**

A number of survey respondents have identified additional thematic elements that should be included in our advocacy activities, such as:

- Increased role of local government and community in the design, construction, and maintenance of rural transport (mentioned four times);
- Road safety (mentioned three times);
- Non-motorized transport (mentioned three times);
- New technologies for rural roads (materials, design, and sensors) and adaptation (mentioned three times);
- Affordability of rural transport services (mentioned twice);
- Social equity issues in rural transport (mentioned twice);
- Freight and goods transport in rural areas (mentioned twice);
- Rural transport and natural habitat (mentioned twice);
- Rural transport land-use planning and rural transport demand management (mentioned once).

Based on the limited number of mentions it appears that there is no need to create, additional themes in the outreach.

### Feedback on Suggested Topics

This section summarizes feedback from survey respondents on 1) the importance of including the suggested topics in the final list of key messages; and 2) additional comments to the rationale or framing of the suggested topic.

#### a. Suggested Topic: National Growth Strategies

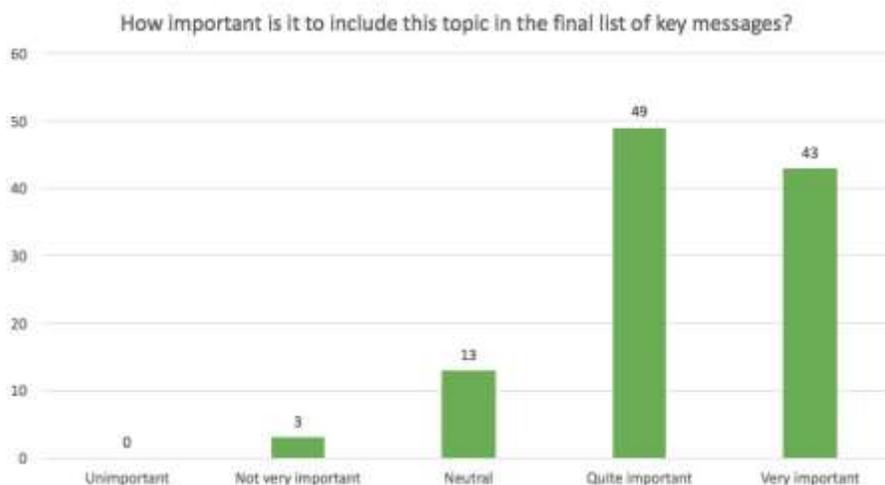
##### ***Linkage to SDG 1 (No Poverty) and SDG 8 (Decent Work and Economic Growth)***

**Rationale:**

There is wide-spread evidence that rural development is a catalyst for national economic growth. Increasing rural incomes stimulated demand for industrial products that generated unprecedented nation-wide growth rates. The development of rural agro-industries reinforced this process, which would not have taken place without rural transport.

**Feedback from survey respondents:**

43 survey respondents (34% of total) think it is very important to include in the final list of key messages. Slightly more survey respondents think the suggested topic is “quite important” and 13 remains neutral. Only three respondents think it is not very important and no respondents think the suggested topic is unimportant (Figure 6).



**Figure 9. Rating of suggested topic 1.1 National Growth Strategies**

In terms of the framing and rationale of this suggested topic, one respondent suggests to specify that rural *transport* development is a catalyst for national economic growth, not just rural development. Others point out that rural transport provides opportunities for training and capacity building, climate change/ renewable energy projects, improvement in the efficiency of water usage; improved quality of rural access also affects costs and marketability of final retail goods. In addition, the suggested topic should also emphasize the equitable distribution of growth.

Some respondents disagree that rural development is a catalyst for national economic growth. One respondent argues that the impact of industrial products moving to rural areas will create more issues for sustainability as this may require electricity to operate and will increase electricity usage and create undue demand. It will also inflict additional costs to rural families and prevent them to make use of enhanced income for more productive use.

While one respondent points out the need to reinforce the connection that rural growth is good for urbanization, another respondent argues that the negative aspects of rapid urban development would attract more people to migrate to from rural to urban areas. Hence, the food production at rural levels will be seriously affected and future food security will be in danger.

**b. Suggested Topic: Poverty alleviation**

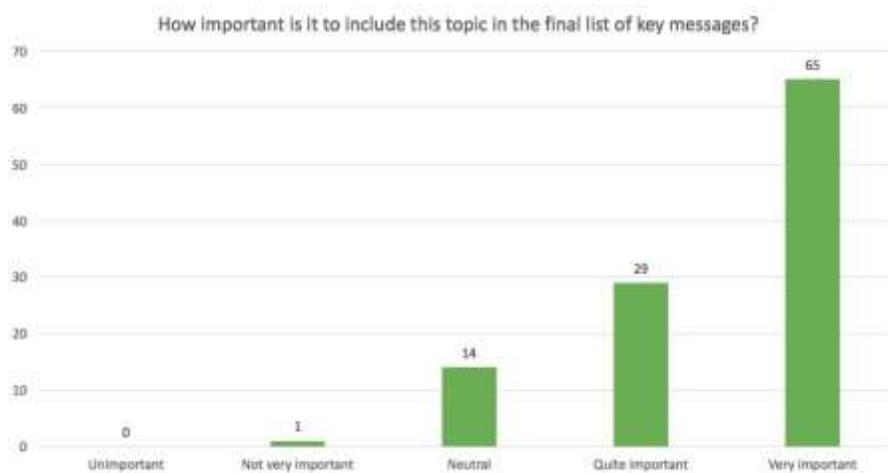
### **Linkage to SDG 1 (No Poverty)**

#### **Rationale:**

Poverty is predominantly rural and subsistence economy is its salient feature: farmers are not producing for markets and thus have little monetary income. Access to markets is an essential pre-condition to generate rural income and thus reduce poverty. At the same time, provision of improved rural transport will enhance access employment opportunities.

#### **Feedback from survey respondents:**

More than 50% of survey respondents think it is very important to include this suggested topic in the final list of key messages. 29 respondents think it is quite important, 14 respondents remain neutral, and only one respondent think the suggested topic is not very important (Figure 7).



**Figure 10. Rating of suggested topic 1.2 Poverty Alleviation**

Some survey respondents point out that poverty is not merely an issue for the rural area. Improvement in rural transport also helps to prevent population migration to urban areas and the subsequent increase of urban poverty. Other respondents suggest that the provision of raw material and produce access to local markets would be key to enhancing national value addition processes before export. It is important to make sure the rural farmers will continue in their agricultural activities. The opportunities should not be limited to employment outside urban areas but opportunities for new avenues and new attractive new markets for the rural farmers. Access to better (and higher) education and health is another factor that helps the poverty to remain in the rural contexts. It would be ideal to bring those services closer to rural areas to reduce transport costs.

One respondent point out that poverty alleviation is already a recurring theme and the suggested topic should focus on rural employment and transport linkage which contributes to a rural transport value chain.

#### **c. Suggested Topic: Zero hunger and food security**

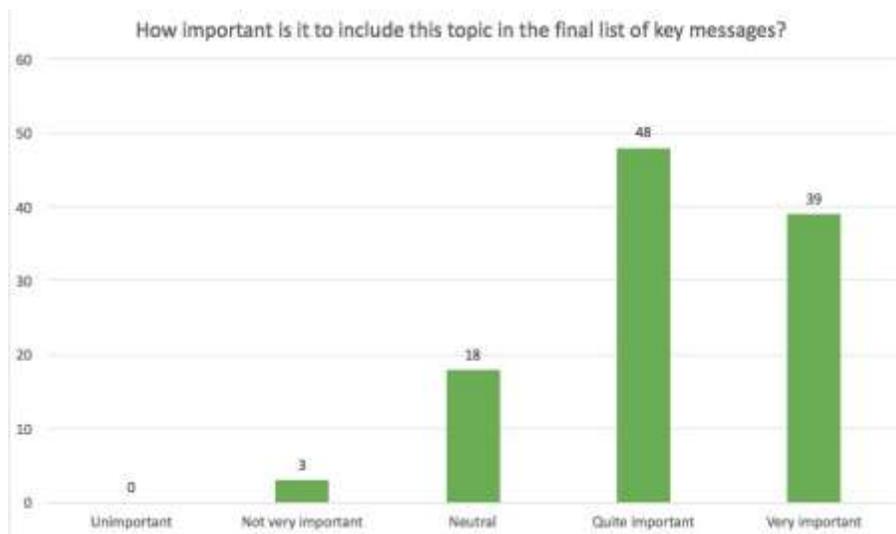
### **Linkage to SDG 2 (Zero Hunger and Food Security) and SDG 8 (Decent work and Economic Growth)**

**Rationale:**

Local agricultural production can reduce hunger by supplying both urban and rural areas with “nutritious and sufficient food all year round”. Food security is enhanced since dependency on edible imports is reduced. Additionally, import substitution improves the trading balance. Rural-urban transport links are indispensable to achieve the above.

**Feedback from survey respondents:**

More survey respondents think the suggested topic is “quite important” than it is “very important” to be in the final list of key messages. 18 respondents hold a neutral view on this and three respondents think it is not very important to include the topic in the final list (Figure 8).



**Figure 11. Rating of suggested topic 1.3 Zero Hunger and Food Security**

One respondent suggest to put food security before zero hunger. Some respondent suggest that the rationale should include the role of rural access, reduction in transport cost and time, and the reduction of global food mile in ensuring food security. Another respondent suggests to highlight the role of rail transport for goods and passenger in achieving zero hunger and food security.

One respondent point out that the issue is perhaps more related to other conditions such as drought, floor water retention and irrigation.

**d. Suggested Topic: Access to markets**

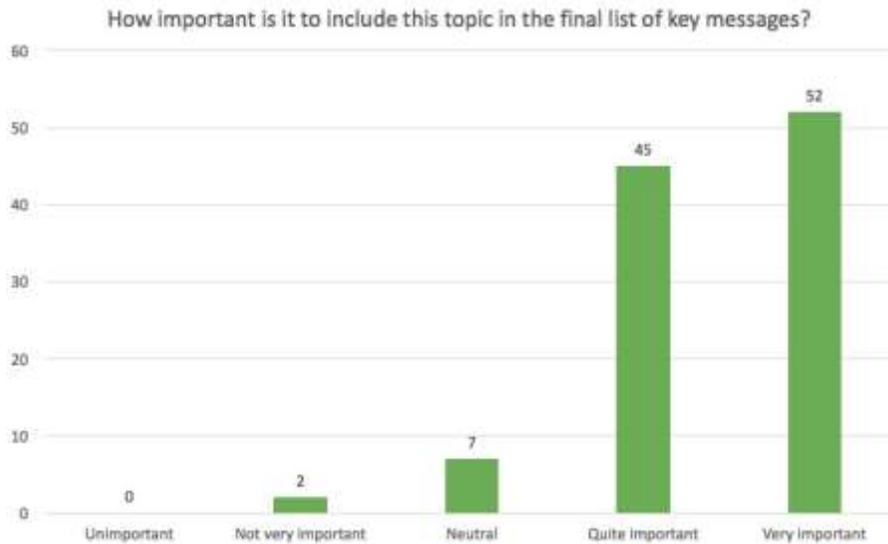
**Linkage to SDG2 (Zero Hunger) and SDG 8 (Decent work and Economic Growth)**

**Rationale:**

Access to markets and to agricultural inputs determines agricultural production. Only adequate all-year access will enable farmers to optimize their production and thus generate rural growth. In rural areas the “first mile” in taking agricultural products to markets often poses the largest challenge in terms of costs and reliability.

**Feedback from survey respondents:**

More than 40% of respondents think the suggested topic is very important and 36% of respondents think it is quite important to be included in the final list of key messages. Only seven respondents are neutral on this and two respondents think it is not very important.



**Figure 12. Rating of suggested topic 2.1 Access to Markets**

Access to market is a major challenge as most farmers in the rural communities find it difficult to transport their farm produce to the market. The rationale should also highlight the principles of cost-effective storage, transport of farm produce, and rural non-motorized transport. Special attention should be given to the cost of access, and the reverse access from urban markets to rural areas is also key to success.

A small textual suggestion was made to use “rural areas” instead of “rural area.” A brief description on the last mile challenge should be given to those who are not familiar with the subject.

**e. Suggested Topic: Access to essential services**

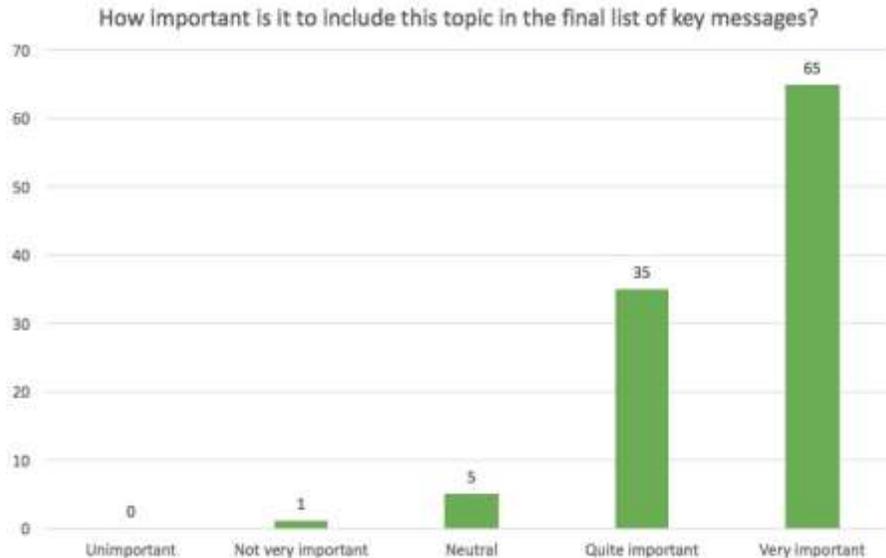
**Linkage to SDG 3 (Health), SDG 4 (Education) and SDG 6 (Sanitation)**

**Rationale:**

Isolation is a main feature of rural areas. Rural transport is key in improving access to health, education, and other social services. These in turn have impacts on labor productivity and thus growth. In many cases, this will require overcoming the First kilometer challenge.

**Feedback from survey respondents:**

Similar to the suggested topic 1.2 on poverty alleviation, more than 50% of survey respondents think it is very important to include this topic in the final list of key messages. 35 respondents think it is quite important. Five respondents is neutral on this and only 1 think it is not very important (Figure 10).



**Figure 13. Rating of suggest topic 2.2. on Access to Essential Services**

Isolation also leads to disenfranchised populations and can adversely impact SDG 16. Rural transport services should be decentralized to reach marginal communities. One respondent points out that by mentioning first kilometer challenge, the topic assumes social services are in urban area. The rationale should be framed to include social services in rural areas. Two other respondents point out that access to health services should be emphasized more.

**f. Suggested Topic: Inclusive transport – elderly, disabled people, gender equality**

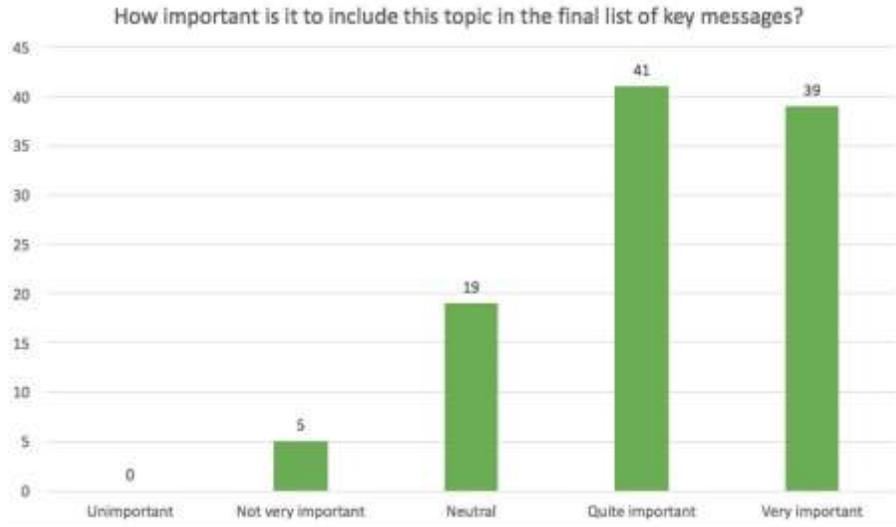
**Linkage to SDG 5 (Gender, SDG 10 (Reduced Inequalities) and SDG 11(Sustainable Cities and Communities)**

**Rationale:**

Rural transport is a key enabler for social equity in rural areas.

**Feedback from survey respondents:**

39 respondents think it is very important to include this topic in the final list of key messages. Slight more (41) respondents think it is quite important. Compared to other suggested topics, more respondents are neutral on the topic (19) and there are also more respondents who think it is not very important (5) (Figure 11).



**Figure 14. Rating of suggested topic 2.3. on Inclusive Transport**

A number of respondents emphasize to include children in this suggested topic. It should also include a point that women carry disproportionate workloads (e.g. agriculture, transport of water and firewood) in rural areas. Inclusiveness of rural transport is also depend on specific rural transport characteristics (e.g. cost, comfort, points of access etc.). In addition, advocacy on the financing scheme for inclusive rural transport is important.

#### **g. Suggested Topic: Sustainable rural transport services**

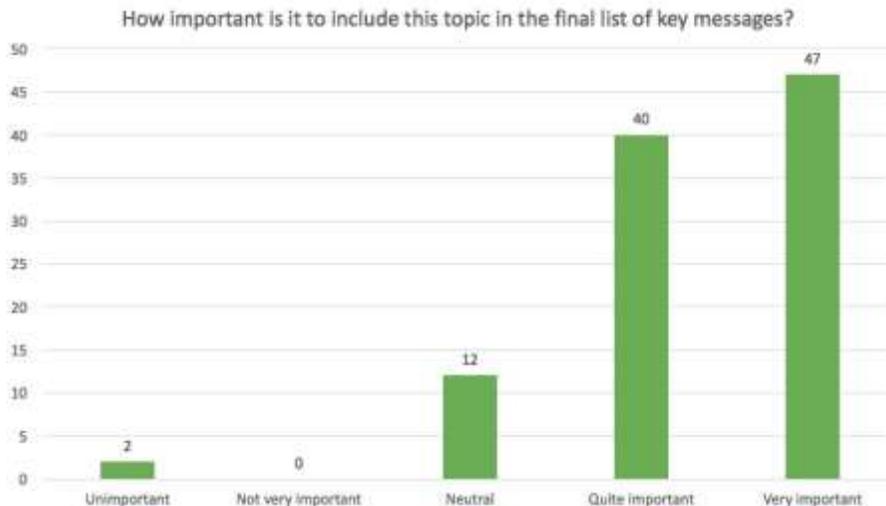
***Linkage to SDG 9 (Industry, Innovation and Infrastructure) and SDG 11(Sustainable Cities and Communities)***

##### **Rationale:**

Since ownership of private vehicles is scarce in rural areas, transport services provide the only way to travel longer distances. Action on Rural Transport needs to encourage and facilitate reliable, safe, and affordable transport services for passenger and freight to ensure full use of appropriate and sustainable rural transport infrastructure.

##### **Feedback from survey respondents:**

47 respondents think it is very important to include this topic in the final list of key messages. 40 respondents think it is quite important and 12 respondents are neutral on this. Two respondents think that it is unimportant to include in the final list.



**Figure 15. Rating of suggested topic 2.4 on Sustainable Rural Transport Services**

Respondents point out that sustainable rural transport services are especially important for economic growth in remote area and agrarian society. Transport Infrastructure in rural areas needs to be emphatically linked to transport services in order to spread the benefits of rural access equitably across communities. One respondent suggests to specify the text with: “ sustainable rural transport infrastructure and appropriate means of transport.”

The use of safe and stable Intermediate Means of Transport (IMT) in transport services can substitute conventional transport modes in the rural areas because low density population in the rural areas will not attract the private transport service providers. Also, improving connectivity from remote villages (especially mountainous areas) to roads with available transport services should be included. The application of Information and Communication Technology and other innovation should also be considered.

#### **h. Suggested Topic: Improved maintenance of existing networks**

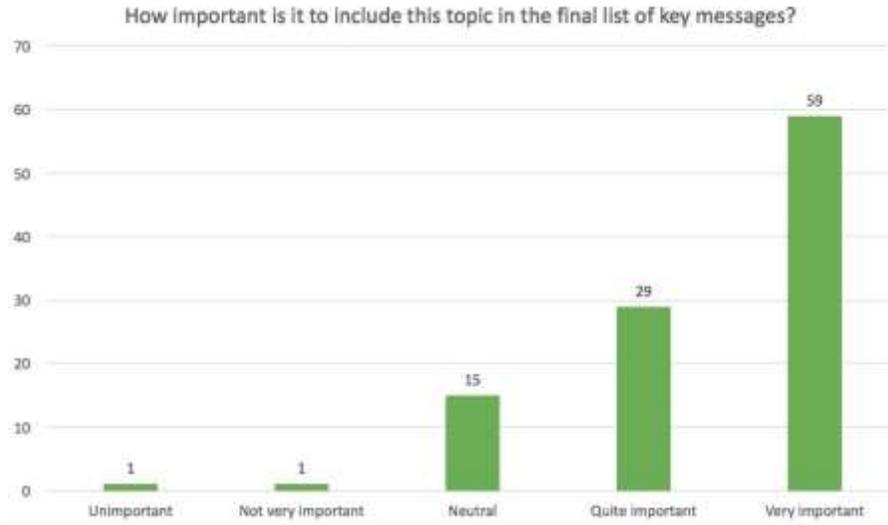
##### ***Linkage to SDG 9 (Industry, Innovation and Infrastructure)***

##### **Rationale:**

An important problem in rural transport in many cases is not insufficient infrastructure, but the neglect of maintenance of existing assets. This requires a dedicated political will to strengthen existing procedures and institutions and adequate sources of funding.

##### **Feedback from survey respondents:**

59 survey respondents think it is very important to include this topic in the final list of the key messages. 29 respondents think it is quite important; 15 respondents are neutral on this and there are one respondents who think it is not very important and one who think it is unimportant to be included.



**Figure 16. Rating of suggested topic 3.1 on improved maintenance of existing networks**

A number of respondents suggest to frame this topic from a financial perspective. The negligence to maintain existing networks contributes to less efficient lower vehicle speeds and increased vehicle maintenance, which will impose higher transport costs for users and government. It also requires better institutional development of road maintenance organizations and dedicated political will to take action on the local level.

Other respondents suggest the use of Hyght Intensity of Main-d'Oeuvre method (HIMO) and Labor-based method from planning through maintenance of rural transport services and infrastructure. Maintenance by the HIMO method ( Hyght Intensity of Main-d'Oeuvre)

### **i. Suggested Topic: Financing and Resourcing Rural Transport Infrastructure**

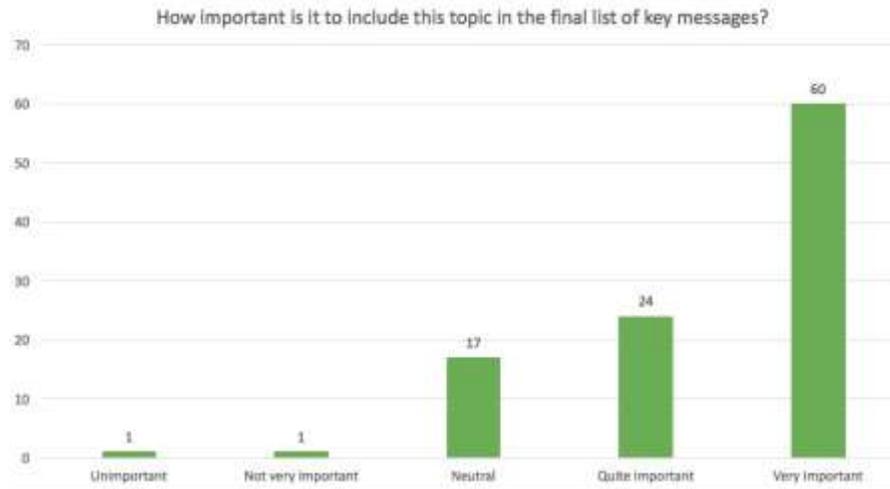
#### ***Linkage to SDG 9 (Industry, Innovation and Infrastructure)***

##### **Rationale:**

Current financing approaches are not adequate to achieve required affordable and sustainable expansion of rural transport as well as maintenance of existing network. Existing funding sources need to be expanded and new funding sources needs to be developed, piloted and implemented throughout the asset life cycle.

##### **Feedback from survey respondents:**

Nearly 50% of respondents think it is very important to keep this topic in the final list of key messages. 24 respondents think it is quite important. 17 respondents are neutral. One Respondent think it is not very important and one respondent think it is unimportant.



**Figure 17. Rating of suggested topic 3.2 on Financing and Resourcing Rural Transport Infrastructure**

Adequate financing is the prerequisite for proper maintenance of rural transport services and infrastructure. However, rural infrastructure is often times not prioritized in strained national budgets of poor and developing countries. The government should ensure annual budgetary allocations going for the regular maintenance of rural infrastructure. One respondent also points out that if corruption is eliminated, in many cases there would be sufficient budget to implement the reforms and actions required. In addition, comprehensive scheme which includes local level is required.

#### **j. Suggested Topic: Improved Asset Management**

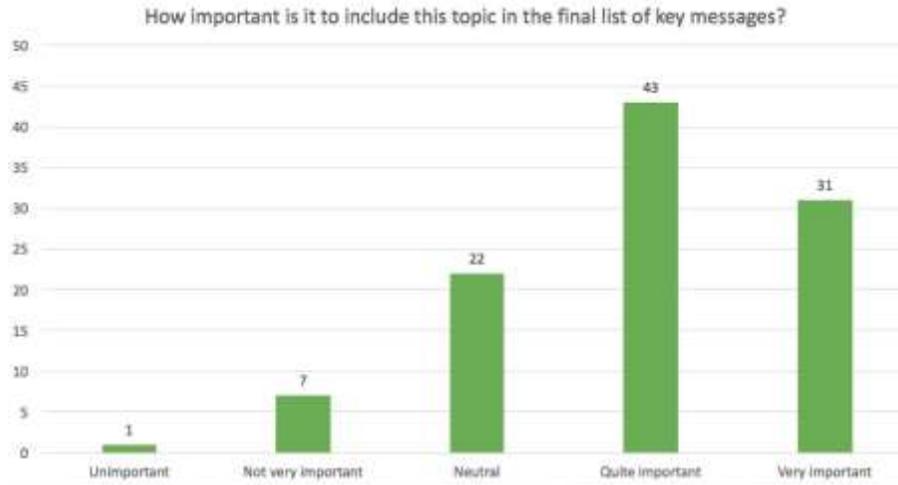
***Linkage to SDG 9 (Industry, Innovation and Infrastructure), SDG 8 (Decent work and Economic Growth)***

##### **Rationale:**

Introduce and embed asset management culture, and life cycle cost management and practice for rural transport infrastructure to ensure increased cost-effectiveness and durability of investments. Additionally, in low income areas, labor based maintenance is an important asset management tool.

##### **Feedback from survey respondents:**

Compared to other topics, less respondents think it is very important to include (only 31) in the final list of key messages, but more respondents think it is quite important to include. Relatively more respondents are neutral on this (22), with seven respondents think it is not very important and one respondent thinking it is unimportant.



**Figure 18. Rating of suggested to suggested topic 3.3 on Improved Asset Management**

Sound maintenance-conscious policies are the foundation of such implementation programs. Innovative infrastructure would be useful to increase the sustainability of rural access but it is not a must for access initiation. As long as good governance and financing is in put in place, innovation can follow.

In addition, quality and durability of infrastructure should take precedence over labor intensive maintenance. Rural transport management should be all inclusive with strong bottom-up participation. One way is to introduce capacity building at village level.

**k. Suggested Topic: Ensure sustained use of available limited rural transport resources**

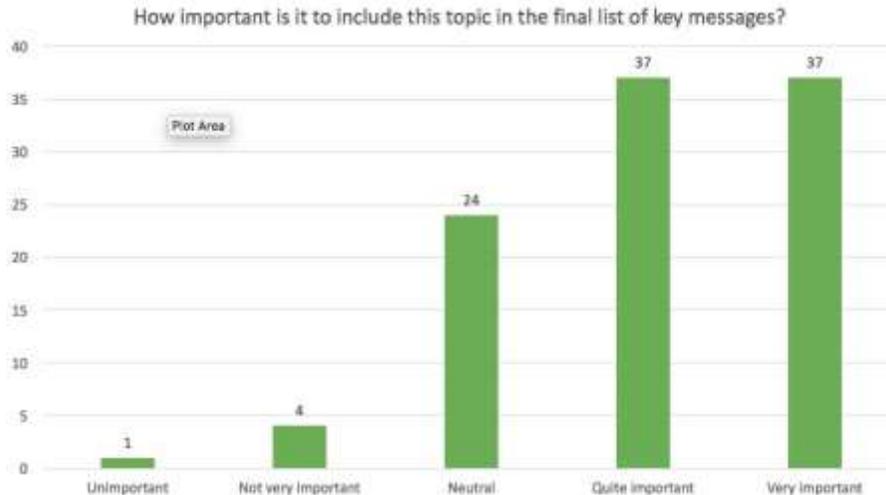
**Linkage to SDG 9 (Industry, Innovation and Infrastructure) and SDG 13 (Climate Action)**

**Rationale:**

Since climate change can have negative impacts on rural access, the reliability of access is enhanced by resilience of rural transport infrastructure and services. The limited available resources must be deployed in the most effective way to deliver sustained affordable and resilient rural transport infrastructure and services.

**Feedback from survey respondents:**

There are 37 respondents who think it is very important and 37 respondents who thin think it is quite important to include this topic in the final list of key messages. Compared to other topics, a large number of respondents are neutral on this issue (24) with four respondents thinking it is not very important and one respondent thinking it is unimportant to be included.



**Figure 19. Rating of suggested topic 4.1 on Ensure sustained use of available limited rural transport resources**

One respondent suggest to change the topic title to “ensure resilience of rural transport infrastructure and services.” Resilience measures and sustained use of resources are similar but two different topics.

Another respondent expresses that “ensure” is a very vague and unmeasurable term to be used.

Others suggest that it is key in reducing maintenance costs and this concept should be rolled into design, construction, and maintenance practices as policy. It should also stress on the use of locally available Labor, materials, and tools.

There is a need to reiterate the disproportional impact of climate change-related disasters on poor rural communities and the need to adapt rural access for resilience in order to alleviate the vulnerability of rural communities to climate change.

**I. Suggested Topic: Improving rural Access requires better measurement of access**

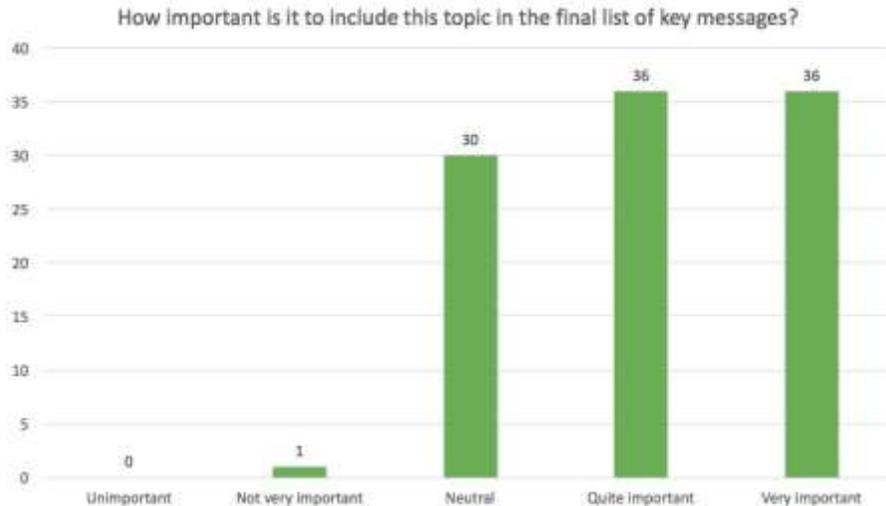
**Linkage to SDG 9 (Industry, Innovation and Infrastructure)**

**Rationale:**

Setting priorities for rural infrastructure management requires adequate information that is often not existing. Innovative information tools are needed, such as remote sensing, usage of GIS based apps to measure road roughness or assess the quality of transport services.

**Feedback from survey respondents:**

36 respondents think the topic is very important to include in the final list of key messages. The same number of respondents think it is quite important. There are 24 respondents who are neutral on this topic, which is the highest number among all topics. One respondents think it is not very important and no respondent think it is unimportant.



**Figure 20. Rating of suggested topic 5.1 on Improving rural access requires better measurement of access**

A number of respondents agree that measuring rural access is a very important topic. It is impossible to identify areas of opportunity for rural transport development without properly measuring rural access. It will also be a useful tool to increase transparency and reduce corruption on the local level.

One respondent suggest that this topic should be combined with 3.3 on improved asset management. Another respondent points out that measuring rural access is important but the impact is indirect. It is proposed to change the framing to: "...assess the quality of transport services and usage of innovative methodologies such as Integrated Rural Accessibility Planning."

The challenge in measuring rural transport is great, as the introduction of ICT and transport app is often not application in very poor and remote areas. The introduction of new technology will be difficult if there are a large population who are illiterate or not knowledgeable to technology.

### Overall ranking of suggested topics

Topic 2.2. Access to essential services and topic 3.2 financing and resourcing rural transport infrastructure have been ranked as the important topics to be included in the final list of key messages, with nearly half of the respondents choosing them. Topic 2.4 on sustainable rural transport services comes as the second most-voted topic to be included with only one vote less. Topic 2.1 on Access to market also receives a very high number of votes, with 55 respondents thinking it should be included in the final list.

Topics on poverty alleviation (1.2), national growth strategies (1.1), inclusive transport (2.3), and improved maintenance of existing networks (3.1) are in the mid-range, with 40 to 50 respondents (30% to 40%) voting for them. Less than 25% of respondents think the topics on zero hunger and food security (1.3) and measuring rural access (5.1) should be included in the list. Only 15% of respondents think the topic on improved asset management (3.3) and sustained use of available limited rural transport resources (4.1) should be included in the final list of key messages.

Which of the 12 suggested topics should be included in the final list of 5 key messages?

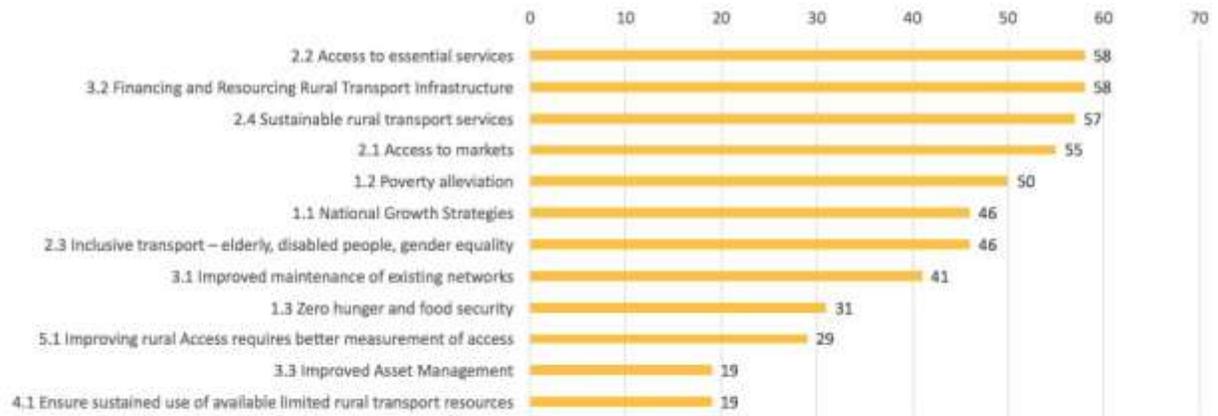


Figure 21. Ranking of suggested topics by survey respondents

## Annex B: Feedback from Expert Interviews

This section includes summaries of the expert interviews conducted by Rob Petts and Niklas Sieber.

### Interview Summary by Rob Petts

The following sector senior experts were interviewed: David Salter (ADB), Dr. Jasper Cook (ReCAP), Mike Pinard (Infra Africa), and Dr. Michael Burrow (University of Birmingham). The longlist of draft topics and key messages was circulated to the interviewees in advance of a Skype or telephone discussion with these leading sector experts.

It was originally intended to discuss each suggested draft Theme and Message in turn and elicit comments and possible improvements. However, time constraints prevented this. Furthermore, the general initial feedback was that the draft messages were insufficiently focused on 'big ideas' that could be 'sold' to the target audiences. There were some overlaps, perceived vagueness on some messages and inappropriate terminology used.

In view of the foregoing the interviewees were asked to suggest what they thought were the priority key messages to be promoted for the Rural Transport Sector. These were discussed in detail and some 'flesh' put into the supporting text in terms of sub-issues and supporting dialogue. Headings likely to grab attention and support were also developed.

The discussions material was worked up into the 5 Priority Key Themes and Messages in the following text. The aim was to produce something that would appeal to, and be supported by, both sector practitioners and our potential targets outside of the immediate Rural Transport community. The synthesis was circulated for final comments and refinements. It therefore represents a consensus among the 4 experts interviewed. It was considered inappropriate to assign specific points to each interviewee.

The output is summarized following:

#### **THEME 1: Transport Drives Sustainable Rural Development and National Cohesion**

##### **1.1 Suggested Topic: Poor Rural Transport Condemns the Poor to Stay Poor and Disconnected**

***Linkages to SDG 1 (No Poverty), SDG2 (Zero Hunger), SDG3 (Health), SDG4 (Education), SDG8 (Decent work and economic growth), SDG9 (Industry, Innovation and Infrastructure), SDG 11 (Sustainable Cities and Communities), SDG13 (Climate Action)***

#### **Rationale:**

Efficient transport infrastructure underpins development in all countries. Good rural road infrastructure promotes connectivity and social cohesion. It drives agriculture, trade, commerce and industry as well as accessibility and mobility to knowledge, jobs, health education and other services, and social and economic facilities necessary to counteract poverty and isolation. Countries cannot develop socially and economically without efficient, affordable, sustainable and appropriate climate resilient urban, inter-

urban and rural transport infrastructure and services. Rural transport facilities and services are indispensable for unlocking the country's growth and equity potential.

## **THEME 2: Engaging ALL Stakeholders**

### **2.1 Suggested Topic: Cross-sector Cooperation Required for Transport to Deliver Sustainable Development for ALL**

***Linkages to SDG 1 (No Poverty), SDG2 (Zero Hunger), SDG3 (Health), SDG4 (Education), SDG5 (Gender Equality), SDG8 (Decent work and economic growth), SDG9 (Industry, Innovation and Infrastructure), SDG 11 (Sustainable Cities and Communities), SDG13 (Climate Action), SDG16 (Build Effective Institutions) SDG17 (Partnership for the Goals)***

Political, operational and community structures, mechanisms and representatives must develop the necessary will and cooperation to identify the rural transport access and mobility challenges to achieve the range of SDGs through comprehensive goal and challenge analysis. New cross-sector consultation and collaboration fora will be necessary. Cooperation between ALL stakeholders is required to develop the policy framework, problem solving methods, strategies, delivery arrangements and (developed and retained) capacity, and resource mobilization to ensure mutually beneficial and sustainable outcomes with transport infrastructure and services that are safe, appropriate, affordable, resilient and 'fit for purpose'. The following pre-requisites need to be recognized and accommodated; they must be Politically supported, Socially acceptable, Institutionally possible, Technically appropriate, Economically viable, Financially sound, Environmentally sustainable and Climate resilient.

## **THEME 3: Rural Transport and Agriculture**

### **3.1 Suggested Topic: Facilitating Delivery of More Efficient and Sustainable Food Production**

***Linkages to SDG 1 (No Poverty), SDG2 (Zero Hunger), SDG8 (Decent work and economic growth), SDG 11 (Sustainable Cities and Communities), SDG13 (Climate Action)***

#### **Rationale:**

Growing world population, urbanization pressures on available agricultural land, increasing water resource constraints and climate instability mean that there are greater and serious challenges to rural agriculture and food security. It is acknowledged that rural road access in low-income countries (LICs) is critical for economic and social wellbeing. In many LICs, agriculture offers a tremendous opportunity, as growth in demand for food continues to rise with increasing population growth. Much of this food requirement can be met by local or regional producers; however, in many LICs, food imports are increasing because local production cannot meet rising demands. In addition to these opportunities, international prices for traditional export crops are high and export volumes could increase (Knox et al., 2013; Akpan, 2014). However, these commercial opportunities can only be realized if products can reach internal and export markets in a timely fashion, undamaged and with acceptable vehicle operating costs. Further, the movement of both human resources to the farm and products to support agriculture also requires adequate transport infrastructure and associated services. Poor transport infrastructure and associated high costs of transport services from poor route conditions, or intermittent seasonal access, necessarily impact adversely on agricultural production and costs. Better rural transport infrastructure and services will be required to improve rural access and urban linkages, improve access to markets, lower transport costs, reduce crop wastage, increase food security and increase production on a diminishing land resource, depleted by nutrient flows to the urban centers. Improved rural transport will allow investments and rural based value chains (agro-industries) with associated rural employment and

economic development with more self-reliant rural communities. Transport needs analysis must consider the complete transport chain encompassing inputs to the farms and all linkages and activities between the farming units (first km) and the consumer.

#### **THEME 4: Management of Rural Infrastructure**

##### **4.1 Suggested Topic: Improve Management of Rural Transport Infrastructure**

***Linkages to SDG8 (Decent work and economic growth), SDG9 (Industry, Innovation and Infrastructure), SDG13 (Climate Action)***

#### **Rationale:**

Rural transport infrastructure is the largest publicly owned investment in most developing regions. However, in the recent past, generally poor management has led to widespread loss of asset value and impaired all-season access for many communities, resulting in increased road user costs, reduced access to markets and services, and disconnection from economic and social opportunities. To address this, it is necessary to introduce and embed an asset management culture and life cycle cost management and practice. This will substantially increase cost-effectiveness of the available resources and transport provision, and encourage investments in rural activities and communities. Furthermore, due to scarcity of credit for rural communities, the focus should be on Local Resource Based (LRB) approaches which effectively mobilize local human resources, enterprises, production, communities and organizations, rather than imported inappropriate technologies and resources. Improved asset management of the transport infrastructure will inventories and value the infrastructure assets. It will recognize local capacities and constraints, the operational environment, and counter climate instability with enhanced deployment of the available resources through a better balance of design, construction and maintenance issues and factors. Effective asset management systems will allow the available limited resources to be targeted at crucial locations for the most cost-effective resource applications.

#### **THEME 5: Local Solutions for Local Challenges**

##### **5.1 Suggested Topic: The Local Rural Access & Mobility Needs and Challenges Must be Identified, Acknowledged and Met through the Effective Mobilization of Local Resources.**

***Linkages to SDG 1 (No Poverty), SDG2 (Zero Hunger), SDG3 (Health), SDG4 (Education), SDG5 (Gender Equality), SDG8 (Decent work and economic growth), SDG9 (Industry, Innovation and Infrastructure), SDG10 (Reduced Inequalities), SDG 11 (Sustainable Cities and Communities), SDG13 (Climate Action), SDG16 (Build Effective Institutions) SDG17 (Partnership for the Goals)***

#### **Rationale:**

Rural communities in LICs with inadequate access are also often restricted from the pursuit of social interaction, and from schools, health facilities and basic needs such as clean water and energy. Vulnerable members of the community are the most affected. Local policies, strategies and action plans need to be developed to ensure access and affordable transport services are available to ALL rural community members; including women, children, elderly, disabled and any other disadvantaged groups. Local solutions must be developed that optimize and mobilize the use of local knowledge resources, innovation, human resources, enterprises, community structures, materials and other physical resources. Planning issues regarding whether roads or other facilities are the optimum investment (e.g. using for example Integrated Rural Accessibility Planning) need to be addressed. Existing funding sources and arrangements need to be reviewed and new funding instruments explored, piloted and mobilized.

Appropriately straightforward implementation arrangement options; by contract, work force or community methods should involve transparent and appropriate, uncomplicated documentation, technical guidance and quality assurance, and be output orientated.

### Interview Summary by Niklas Sieber

The following sector senior rural transport experts were interviewed: Peter Sturmheit (AfDB), Reiner Koblo (KfW), Reiner Kuhnle (Rural Transport Consultant, GITEC), Joseph Haule (Tanzanian Road Fund, retired), and Prof Martin Snaith (Civil Engineering - University of Birmingham).

The longlist of draft topics and key messages was circulated to the interviewees in advance of a Skype or telephone discussion with these leading sector experts.

The priorities were set by the interviewees as follows:

Key Message	Priority
<b>Goals</b>	
1.1 National Growth Strategies	I
1.2 Poverty alleviation	IIII
1.3 Zero hunger and food security	I
2.1 Access to markets	
2.2 Access to essential services	II
2.3 Inclusive transport – elderly, disabled people, gender equality	
<b>Means to achieve the goals</b>	
2.4 Sustainable rural transport services	I
3.1 Improve maintenance of existing networks	III
3.2 Financing and Resourcing Rural Transport Infrastructure	III
3.3 Improved Asset Management	IIII
4.1 Ensure sustained use of available limited rural transport resources (Climate	II
5.1 Improving rural access requires better measurement of access	I

The priorities for the key messages can be divided into two types:

- i) The *goals* to be achieved by improved rural transport and
- ii) The *means* to achieve these goals.

Regarding the goals, poverty alleviation was considered the main rationale for rural transport, followed by access essential services. Regarding the means to achieve these goals maintenance (3.1, 3.2 and 3.3) was considered as most important. The interviewees mentioned rightly, that some message can be merged. These are Topics 1.2 and 2.1 and the topics 3.1, 3.2, 3.3 and 5.1. This brings us to the following structure in the order of importance:

Goals	Means to achieve the goals
<ul style="list-style-type: none"> <li>• <b>Poverty Alleviation</b></li> <li>• Access to Services</li> <li>• Zero Hunger and Food Security</li> <li>• National Growth</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Maintenance</b></li> <li>• Climate Change Adaptation</li> <li>• Transport Services</li> </ul>

### *Goals to be achieved by rural transport*

\*The following text is a summary of feedback received solely from the expert interviews with Peter Sturmheit (AfDB), Reiner Koblo (KfW), Reiner Kuhnle (Rural Transport Consultant, GITEC), Joseph Haule (Tanzanian Road Fund, retired), and Prof Martin Snaith (Civil Engineering - University of Birmingham).

#### **Main Goal: No poverty reduction without improved rural access**

Poverty is predominantly rural and subsistence economy is its salient feature: farmers are not producing for markets and thus have little or no monetary income. Access to markets is an essential pre-condition to generate rural income and thus reduce poverty. Since harvesting times are often during the rainy season, adequate all-year access to markets is needed. Missing rural access will keep farmers in isolation and poverty.

A large quantity of international research (Sieber and Allen 2016) corroborates that rural roads are directly generating rural incomes through improved agricultural marketing and increase employment opportunities. Similar to the last mile logistic problem, in rural areas the first mile in taking agricultural products to markets often poses the largest challenges in terms of costs and reliability. Additional rural income is generated through enhanced access to employment opportunities, reduced transport costs and which increase agricultural producer prices.

#### ***Output of the SDG Process:***

Raise consciousness that SDG Goal 1 (No Poverty) cannot be achieved without improved rural access.

Rural transport contributes to the following additional goals:

- **Improved access to Services** will enhance productivity and thus increase rural income: Productivity increases are achieved through agricultural inputs and services, banks, administration, education and health facilities. This includes social and political participation.
- **Zero Hunger and Food Security:** Local agricultural production can reduce hunger by supplying both urban and rural areas with “nutritious and sufficient food all year round”. Food security is enhanced since dependency on edible imports is reduced. Additionally, import substitution improves the trading balance. Rural-urban transport links are indispensable to achieve the above. Agriculture is AfDB’s second highest development priority.
- **Output of Nationwide Growth:** There is wide-spread evidence that rural development is a catalyst for national economic growth. Increasing rural incomes stimulated demand for industrial products that generated unprecedented nation-wide growth rates. This goal received little attention in the survey, since it was conducted amongst transport specialist and not macro-

economists. However, the argument is quite important for SDG 8. Additionally, it tries to promote rural development with the focus presently being on cities.

**Output of the SDG Process:**

Seek approval from various other sectors than transport, such as agriculture, health, education, industry, services, development and regional planning.

*Means to achieve the goals*

**Main Means: Political will for maintenance is indispensable**

Rural transport would not be the same problem if adequate maintenance is properly conducted. Rural infrastructures are mostly in existence, but inadequate maintenance is causing a rapid deterioration. Already after two rainy seasons without maintenance, many earth roads are impassable. The main reason for this dilemma is missing political will to sufficiently fund the road works:

- Fuel levies are set too low to collect sufficient funds for the whole road network. A worldwide overview on fuel taxation is given here: <https://www.giz.de/expertise/html/4317.html>.
- Funds from the transport sector are often not earmarked and thus deviated for other purposes with higher political priority than road maintenance.
- Priorities are (rightly) set for the main road network, which leaves little of the insufficient funds for rural roads.
- Corruption: it is much easier to deviate money when building expensive new roads than when conducting maintenance works.

Road infrastructures are the largest publicly owned asset in most developing countries, larger than housing for example. Since rehabilitation or new construction is far more expensive, the neglected maintenance is a gigantic waste of state resources. Therefore, the political priorities should be: Maintenance first, then rehabilitation and last new construction (IRR: 40%, 20%, and 10%).

**Accompanying measures for maintenance**

Additionally, to sufficient funding the following measures are necessary to set up a proper maintenance system:

- Many countries still lack proper *instruments and institutions*, such as fuel taxation, performance based contracts, independent road funds and efficient road agencies.
- Introduce and embed *asset management culture*, and *life cycle cost management* and practice for rural transport infrastructure to ensure increased cost-effectiveness and durability of investments. This requires training.
- *Innovative information tools* are needed, such as remote sensing, usage of GIS based apps to measure road roughness or assess the quality of transport services.
- Create measures to *fight corruption* in road management. Corruption is estimated to waste 30-40% of the available funds in Bangladesh.
- In low income areas, *labour based maintenance* is creating additional rural incomes.

***Output of the SDG Process:***

- Establish a high level political buy-in to adequately fund and conduct rural road maintenance.
- Propose TC, especially training measures
- Establish SDG indicators on rural road maintenance

**Other Means: Climate Change Adaptation**

Climate Change Adaptation is considered as important by the interviewees, since increased extreme weather events represent a major problem for rural roads. Designs need to change which may increase initial investment costs by 50-70% although whole-life costs should fall. . This will require additional funding.

***Output of the SDG Process:***

Raise additional funds for climate change adaptation measures

***Controversial and additional issues***

. Most of the interviewees agreed that once a road was improved, transport services would be offered automatically. If road conditions are improved, transport service providers start competing and thus tariffs decrease while service standards increase. However, an additional regulation is necessary, but should not be part of the SDG process. AfDB puts more weight on this issue, since the bank offers credits for SME transport enterprises for the purchase of vehicles.

Other issues mentioned: Electromobility in rural areas seems to be an innovative approach. This relates mainly to solar power driven motorbikes and tricycles.

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## Annex C: Survey Respondents Interested in Further Engagement

Name	Organization	Survey Results	Promote on website	Promote on Twitter	Promote on LinkedIn	Provide Pictures	Participate in email discussion	Participate in Webinar	Follow-up by phone	Include in Email List
Abu Ibrahim	CENTRE FOR COMMUNITIES EDUCATION AND YOUTH DEVELOPMENT(CCEYD)	X	X		X		X	X	X	X
Abul Monzur Md Sadeque	Local Government Engineering Department	X				X				X
Anu Nkeze Paul	Green Echoes newspaper	X				X	X			
Arif Wismadi	The Center for Transportation and Logistics Studies, Universitas Gadjah Mada, Indonesia	X				X	X	X		X
AVLESSI Adam Padoue	CRETES BENIN	X			X		X	X	X	X
Barry Howe	Alstom	X		X						X
Belén Martín Ramos	TRANSyT-UPM	X			X			X		X
Betty van de Wetering	Betty's Travels	X								X
Bhawani Shanker Kusum	Gram Bharati Samiti (GBS)	X	X		X		X		X	X
CALEB WANGA	USALAMA REFORMS FORU,	X	X			X	X			
Cat Wilson	Halifax Harbour Bridges	X			X			X		
chetan patel	svnit Surat	X			X		X			X
Cornie Huizenga	SLoCaT	X	X	X			X	X	X	X
daniel ofori otchere	dignitydtrt limited	X			X	X	X	X	X	X
Debora Ley	Latinoamérica Renovable	X	X				X	X		X
Diana Guzman	Guzman-Barraza Energy Engineering & Sustainability	X	X	X						X
Dibyendu Sengupta	Independent	X			X			X		
Dinh Van Hiep	Institute of Planning and Transportation Engineering (IPTE), Vietnam	X					X			X
doris chevalier	pppinfra	X	X	X	X		X	X	X	X
DOSSE SOSSOUGA	Amis des Etrangers au Togo (ADET)	X	X	X			X			X
Dr. Ankit Gupta	IIT (BHU) Varanasi - 221005 INDIA	X	X			X	X	X	X	X
Efon Epanty	TransAfriq	X	X	X	X	X	X	X	X	X
ELENA MAGGI	UNIVERSITY OF INSUBRIA	X								
Elizabeth Deakin	University of California, Berkeley	X		X	X				X	
Elysse Bautista	Iniciativa Construyendo Salud A.C.	X	X							
Emem Edoho	Network Advancement Program for Poverty & DRR, (NAPPDRR).	X	X	X			X	X		X
Eng. Charles M. Mtawali	Roads Authority Malawi	X	X				X	X		X
Eng. Nathan A. Bigirwa	KIK Consult Ltd, C/o P. O. Box 1022, KAMPALA - Uganda.	X			X	X	X	X		X
Ervina Ahyudanari	Institut Teknologi Sepuluh Nopember	X			X		X	X		X
Erwin Kohler	3ipe	X	X		X	X	X	X		X
G Rossouw	Department of Environmental Affairs	X					X			
Geraldine Bridgewater		X	X	X	X		X	X		
Ghulam Mohd Malikyar	National Environmental Protection Agency	X	X	X	X		X			
GUO Zijian	Dalian University of Technology	X	X							X

Name	Organization	Survey Results	Promote on website	Promote on Twitter	Promote on LinkedIn	Provide Pictures	Participate in email discussion	Participate in Webinar	Follow-up by phone	Include in Email List
Hai YAN	Beijing University of Technology	X			X					X
Haim Aviram	Kinneret College on the Sea of Galilee	X								X
Hamadi Kallali	Centre des Recherches et des Technologies des Eaux	X			X					X
Hari Prasad Gurung	Department of Geology and Mines	X	X				X			
Henrik Gudmundsson	CONCITO	X		X						
Henry Kamau	Sustainable Transport Africa	X		X		X	X	X	X	X
IVALDI	TSE	X	X							
James Biscoe		X								X
Jeff Turner	Institute for Transport Studies, University of Leeds, UK	X					X	X	X	X
Joanna Elvy	University of Leeds	X		X	X		X			X
Joel Nyaua Mwainyekule	National Institute of Transport	X						X		
John Clifton	John Clifton Lda	X					X			X
Jose-Alfonso Balbuena-Cruz	Instituto Mexicano del Transporte	X		X	X	X	X			X
Juanita Tsai	EDS International, Inc.	X	X							X
Karl Peet	SLoCaT Partnership	X								
Laura Brimont	Iddri	X								
Lou Thompson	Retiree: World Bank	X								X
M.S.Snaith	Un of Birmingham	X								X
Mael Martinie	CODATU	X								
Mange Ram Adhana	Association for promotion sustainable development	X	X					X		X
Maria Cecilia Ramirez	IADB	X		X						X
MARIA LEONOR A MAIA	Universidade Federal de Pernambuco	X	X				X			X
Martina Cecilia Adriana	Asian Development Bank - National Development Planning Agency	X			X		X			
Maya Ben Dror	iCET	X	X				X			
Mcleo Mapfumo	Zimbabwe United Nations Association	X			X		X	X	X	
Michael Engelskirchen	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH	X		X		X	X	X		X
MIGNOT	IFSTAR	X								X
Muhammad Farooq	Ministry of Climate Change	X	X				X			
Muhammad Maswood Alam	Karachi Metropolitan Corporation	X								X
NIGEL PAUL C. VILLARETE	Cebu City Government, Cebu City, PHILIPPINES	X		X	X					X
Nikola Medimorec	SLoCaT	X		X						X
Nur Ubaidillah	Universiti Malaysia Sarawak/ University of Leeds	X	X				X			X
pan haixiao	tongji University, China	X	X							X
Paniagua Fernando	MOPC	X				X		X		
Partha pratim ray	Actionaid	X		X			X	X		
Pema Tenzin	Gross National Happiness Commission	X					X	X		X
Prasad Ranjan	Independent Environment Consultant	X			X		X			X

Name	Organization	Survey Results	Promote on website	Promote on Twitter	Promote on LinkedIn	Provide Pictures	Participate in email discussion	Participate in Webinar	Follow-up by phone	Include in Email List
Attygalle	(working with national & International organizations)									
Precious Ntshangase	Mydream Mydestiny	X				X	X	X		
Prof. Henry Kerali	The World Bank	X	X					X		
Prof. Manoranjan Parida	Indian Institute of Technology Roorkee	X			X		X		X	
Professor Rico Merkert	The University of Sydney	X			X		X			
Rajesh kalarivayil	Tezpur University	X			X		X	X		X
Ramon Cruz	Institute for Transportation and Development Policy	X		X				X		
Ranjith de Silva	Freelance consultant on Rural Transport	X			X		X	X		X
Rika Idei	University of Tokyo	X					X	X	X	X
Rithirak	Ministry of Environment	X								
Sam Mutabazi	Uganda Road Sector Support Initiative (URSSI)	X	X	X			X	X	X	X
Samuel G Bonasso	Reinforced Aggregates Compamy	X	X				X			X
Sonigitu Asibong Ekpe	Cross River Department of Forestry, Biodiversity, Marine Protection and Conservation	X				X	X	X	X	X
Sriraksha M	RVCE	X	X							
Steven Jones	University of Alabama	X	X	X	X	X	X	X	X	
Syed Muhammad Ashfaq	Huqooq-ul-Ebad Development Foundation (HEDF)	X	X				X			X
Talya Enriquez Romano	Partnership on Sustainable, Low Carbon Transport (SLoCaT)	X	X	X			X	X		
Tashi Tobgay	Thimphu Thromde	X			X	X	X	X	X	X
Vivek Yadav	Indian Institute of Science, Bangalore	X								
Yorgos Voukas	TRL Limited	X								X
Zuko Ncemane	Folex Accounting Services	X					X			