

SECRETARIAT OF THE PACIFIC COMMUNITY

SIXTH REGIONAL MEETING OF
HEADS OF AGRICULTURE AND FORESTRY SERVICES (HOAFS)
(Port Vila, 16-20 October 2017)

**FRAMEWORK FOR ACTION ON INFORMATION AND COMMUNICATION
TECHNOLOGY (ICT) FOR DEVELOPMENT IN THE PACIFIC – AGRICULTURE**

PROGRESS AND WAY FORWARD

(Paper prepared by the Secretariat)

1.0 INTRODUCTION

The **2010 HOAFS/MOAFS Meeting** endorsed the *Pacific Framework for Action on ICT for Development* and noted how this framework provided a guide for leveraging ICT and technology for agriculture development (See Appendix 1).

Over the last 7 years the regional dialogue and push for stronger collaboration, partnerships and inclusive models has continued. Two notable examples are the *Pacific Framework for Regionalism* endorsed by Pacific Leaders, the *SIDS Samoa Pathway (2014)*.

The ICT Framework recognises that ICT and technology can facilitate these regional cooperation goals. There is a lot of work being undertaken nationally and regionally to leverage ICT and technology in the agriculture sector. **This is an opportune time for the sector to consolidate this work and build further.**

This paper sets out examples of significant ICT initiatives undertaken in the sector. More importantly, it recommends a way forward to consolidate the work undertaken to date and to further leverage on ICT and technology to assist agricultural development. Two specific recommendations are set out:

- an Agreement that promotes sharing of agricultural information in the region starting with policy and research given that regional portals are now in existence and
- the development of a specific Regional ICT for Agriculture Approach and Concept Note for further support and funding assistance.

2.0 PROGRESS AGAINST THE ICT FOR DEVELOPMENT FRAMEWORK

The table below shows a number of examples of ICG and benefits accrued.

	<i>Priorities as per 2010 ICT framework for Agriculture</i>	<i>Progress To date</i>	<i>Evidence / Links</i>	<i>Benefits</i>	<i>Funding Support</i>
1	Greater Inclusiveness and Transparency	A new regional agriculture policy portal now developed. Launched in <i>Vanuatu, SI, Samoa and Tonga</i> . Regionally launched by EU earlier this month. The “ <i>Agriculture Policy Banks</i> ” (APB) contain over 100 national sector and commodity policies of 15 countries	http://pafpnet.spc.int/policy-bank/countries	Simple tool to promote inclusive participation. Promote regional approaches (already started for Ag Statistics, extension, agri-tourism etc)	SPC - European Union funded – Agriculture Policy Program (APP)
2	Reduced Duplication, Greater transparency	An online repository for agriculture research reports is now in place (“PAIS”) . Regionally launched by EU earlier this month. It builds initially on national systems from PNG, Vanuatu, SI, Fiji and SPC.	http://pafpnet.spc.int/policy-bank/countries	Past Research reports for coconut rhinoceros beetle – a current issue – has been accessed & made available to relevant networks.	SPC - European Union funded Agriculture Policy Program (APP)

3	FARMERS Empowering farmers through the use of Mobile technologies and knowledge learning centres	Fiji Crops and Livestock Council – FCLC) Market Information System established. The FCLC MIS is the first in the Pacific region to be managed directly by farmer’s organisation, and to deliver market pricing information direct to the farmers themselves. SPC support has enabled a database of 5000 farmers (2013) to over 32,000 (2017).	https://admin.fclc.org.fj/en/homap.php	Facility to sell products, exchange information and communicate learning, training opportunities.	SPC, ITC – EU EU-funded programs (IKSA, APP)
4	Farmers and Markets Linking market demand to product ion and prices.	The Cook Island Agriculture Intel (AgIntel) system led by the CI Ministry of Agriculture links crop demand and supply information	<i>Refer to CI</i>	Greater understanding of market demands and linking to production.	SPC (APP), Cook Islands Government.
5	The Pacific Agriculture and Forestry Policy Network (PAFPnet)	The development of the PAFPNet portal as a tool facilitate sharing of information, knowledge and experiences related to agricultural and forestry policy in the Pacific region.	www.spc.int/pafpnet	Over 1000 subscribers. Participation in over 8 technical discussions facilitated since 2014.	SPC-LRD APP
6	Mobile app or platform to record Pest and disease information and alerts	Pests and Pathogen Mobile App -	<i>Download via playstore (only available on smart phones)</i>	Use of apps to facilitate training of extension workers.	ACIAR and SPC
7	Pest List Database to record pests and diseases	Pest List Database (PLD) records of pests that are currently known to affect agriculture, forestry and the environment in Pacific Island countries and territories (PICTs).	http://www.spc.int/pld/	Wide use by competent authorities involved in market access negotiations.	SPC and Pacific Horticulture and Agricultural Market Access (PHAMA)
8	Plant Genetic Resources Database (PacGen)	The Pacific Genetic Resources Database (PacGEN) is publicly accessible databank of CePaCT’s work containing information on the background of crop varieties available including its climate-resilient collections	http://www.spc.int/lrd/cepactacc/	Used to support climate ready research, distributions and evaluations.	FAO and SPC APP
9	Biosecurity Information Facility (BIF) - Regional Biosecurity Operating Procedures	BIF Portal: The online regional biosecurity operating procedures is currently in final stages of development with the official launching earmarked for August this year during the IPPC workshop	http://bif.lrd.spc.int/	Provide easy access to key biosecurity requirements for market access.	SPC and Pacific Plant Protect Organisation (PPPO)

3.0 NATIONAL CAPACITY – what else has been happening?

A series of capacity building and awareness events by SPC and partners have been held in various countries over the last 3 years. These include:

- Regional workshops in Vanuatu ([Sept 2015](#)); Fiji ([May 2016](#)) and Federated States of Micronesia ([Oct 2016](#))
- National KM stakeholders involved in development of Agriculture Sector KM Action Plans in Vanuatu, Samoa, FSM (& Niue, Palau, Marshall Islands)
- Need Analysis and development of Agricultural Sector KM Action Plans:
 - [Vanuatu](#) – KM Action Plan [developed](#)
 - [Samoa](#) – KM Action Plan [developed](#)
 - [FSM](#) – KM scan and analysis, experience shared with Niue, Marshall Islands
- Media Specialists’ training on addressing KM in event reporting; Samoa (June 2016)
- Youth and social media reporting Vanuatu (Sept 2015); Fiji (May 2016).

FAO is also with assisting e-**Agriculture** strategies for Papua New Guinea, Vanuatu and Fiji. SPC has been providing technical advice and support to the development of the e-agriculture strategies. CTA is also an active partner in this ICT, knowledge management space and has collaborated on many of the above interventions.

There are eight (8) PICs that have national agriculture websites – Fiji, Cook Islands, Tonga, Samoa, Vanuatu, RMI, Kiribati and PNG. Many of these countries face challenges with updating information and linking to key stakeholders. This is an area that needs further support.

4.0 WAY FORWARD

The progress to date with leveraging ICT and technology in agriculture has been tremendous. Countries are already active in this space through strategies (e.g. e-Government or e-agriculture) and products / services (e.g. Cook Islands' *AgIntel*, *FCLC* etc.).

At the regional level, there are now 2 new databases or portals that promote collaboration. These are the **policy and research** portals. At the national level, countries are making headway as well on various fronts. In the end, sharing information is also about behavioural change. To date, this has been positive as seen by the Agriculture Policy Bank and PAIS.

5.0 RECOMMENDATION

Officials/Ministers are asked to:

- i. **Note** the good work undertaken to date by countries, nationally and regionally to leverage ICT and technology in agriculture;
- ii. **Agree** to the sharing of agricultural information, which has already started, to facilitate further access to information, inclusivity and regional collaboration at the national and regional levels - as espoused by Pacific Leaders. This Agreement, which sets out an initial set of principles and commitments is to be documented in a *signed Compact* ("*Port Vila Compact...*"). A Draft Compact is attached (Appendix 2);
- iii. **Direct** SPC with the assistance of partners, to prepare_a specific Funding Plan for ICT and Knowledge Management in Agriculture to support the initiatives and products already undertaken, to better link to other partner initiatives and to further the link to policy priorities (at national and regional levels). This plan is to be circulated to countries and development partners within the next three (3) months.
- iv. **Encourage** HOAFS/MOAFS to report progress made by the Agriculture Sector with ICT and information to further strengthen collaboration to the next Forum leaders Meeting and regional and international forums.

FOURTH REGIONAL MEETING OF
HEADS OF AGRICULTURE AND FORESTRY SERVICES (HOAFS)
(Nadi, Fiji Islands, 14–17 September 2010)

SECRETARIAT OF THE PACIFIC COMMUNITY

(Paper prepared by the Secretariat)

EXECUTIVE SUMMARY

1. This paper provides an overview of the proposed *Framework for Action on Information and Communication Technology (ICT) for Development in the Pacific* and discusses how ICT can assist the agriculture sector.

ICT framework – e-Agriculture

2. The Pacific Island countries and territories (PICTs) still have low teledensity (in most cases under 10 per cent) but growing mobile density, especially in PICTs with open telecommunication markets. These PICTs (Tonga, Samoa, Fiji Islands, Vanuatu, Solomon Islands, Papua New Guinea and Palau [non-regulated]) are seeing impressive growth: they have reached approximately 50 per cent mobile density, and some PICTs have close to 100 per cent geographical coverage. The high mobile density provides an opportunity to reach rural and remote communities and, more importantly for the agriculture sector, the farmers. Through mobile phones it is possible to disseminate agricultural information, advice and weather forecasts. Mobile phones and Knowledge and Learning Community Centres (KLCs) can improve agricultural information sharing and increase the quantity and quality of agricultural information available, improving food production, enhancing food security and eventually enhancing market participation. This could also contribute to more informed policy decisions in PICTs. Mobile phones are perhaps the quickest and most appropriate method of receiving and circulating information throughout the Pacific region.

Land Resources Division – Current initiatives and new initiatives linked to the ICT framework

3. SPC and the United Nations Conference on Trade and Development (UNCTAD) worked with the Minister of Primary Industries in Fiji Islands to improve the provision of quality market information to stakeholders involved in the production of fruits and vegetables in Fiji and to facilitate improved markets for domestic produce. As a follow-up, a training workshop will be organised in November for all stakeholders on the use of the UNCTAD INFOSHARE database.

The use of mobile phones and helpdesk system – a new initiative in Tonga

4. The Food and Agriculture Organization of the United Nations (FAO) and LRD are currently implementing a project on improving access of farmers to agriculture information through the use of ICT. The activities include establishing an agriculture information call centre in Tonga, publishing at least 90 extension leaflets on selected crops and livestock subjects in electronic format and providing support in promoting the service to farmers in Tonga.

Pacific Agriculture and Forestry Policy Network (PAFPNet) – Youth in Agriculture Strategy

5. PAFPNet, in collaboration with The Technical Centre for Agricultural and Rural Cooperation ACP-EU (CTA), organised an essay writing contest on ‘Youth and ICTs in Agriculture and Rural Development’. The contest aimed to identify innovative solutions to challenges faced by Pacific youth in agriculture and rural areas using ICT. The essay contest will contribute to raising youth awareness on the potential and opportunities of ICT in agriculture and rural areas. The contest was open to young people aged 18–25 from ACP member countries.

6. The PAFPNet wiki, blog and Facebook page are ‘Web 2.0’ approaches being developed by PAFPNet administrators to allow easy creating and editing of PAFPNet pages by members. All success stories related to youth in agriculture and youth using ICT to do agriculture will be documented on the blog and wiki site.

7. The network’s first newsletter, the PAFPNet e-Newsletter, is now available online. The issues in the newsletter focus on youth involvement in agriculture and the role of the media in agriculture and rural development in the Pacific.

8. SPC (LRD and Economic Development Division) is in the process of organising a consultation and awareness meeting on Internet governance and ICT policy in Fiji Islands. As part of its engagement and assistance to Fiji Islands, SPC, in collaboration with Diplo Foundation based in Geneva, Switzerland, is organising a consultation and awareness event on Internet governance and ICT policy in Fiji to be held in Suva on 1–2 September 2010.

Recommendations

9. Heads of Agriculture and Forestry Services are invited to:

- Acknowledge that ICT is an important tool that contributes to the development of the agriculture sector and rural areas;
- Note the potential of the *Framework for Action on ICT for Development in the Pacific* in assisting the agriculture sector; and
- Note the LRD ICT initiatives in agriculture and rural development.

FRAMEWORK FOR ACTION ON INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) FOR DEVELOPMENT IN THE PACIFIC – AGRICULTURE

Purpose

1. This paper provides an overview of the proposed *Framework for Action on ICT for Development in the Pacific* and discusses how ICT can assist the Agriculture sector.

Background

2. Information and Communications Technologies (ICTs) are universally acknowledged as powerful tools for development. Article 19 of the Universal Declaration on Human Rights recognises that “Everyone has the right to freedom of opinion and expression, receive and impart information and ideas through any media and regardless of frontiers.” As members of the international community of states, this fundamental right has been recognised by all Pacific Island countries.

3. Information fundamentally underpins empowerment and empowerment underpins people-centred sustainable development. In the Pacific, as countries strive to achieve the Millennium Development Goals (MDGs) through the implementation of locally appropriate national development strategies, it is essential that the power of ICTs is harnessed for the benefit of all Pacific people, and in particular, marginalised or disadvantaged groups.

Challenges

4. The Pacific has problems caused by large distances, small scale and scattered populations and markets, lack of infrastructure and human resources, and high costs of connectivity. The ICT Ministers recognized these challenges and in their 2009 Pacific ICT Ministerial Forum Communiqué ‘*Call for increased coordination amongst all stakeholders in the Pacific at regional, sub-regional and national levels to consolidate efforts to improve connectivity*’ and acknowledge ‘*the need for a strategic approach to the development and use of these technologies that recognises the important role of the private sector and the value of building synergies with developments in other sectors, including health, education and energy*’.

5. The ICT Ministers in their 2010 Tonga Declaration recognized ‘*that while ICTs have enormous potential for socio-economic development, they pose risks to our communities that need to be carefully managed*’ and that they ‘*will work together to support the advancement of Pacific countries through improved deployment and use of ICTs in our societies*’ and endorsed ‘*the concept of ‘many partners, one team’ in progressing a more coordinated and coherent approach to ICT development*’.

ICT for Development

6. In addition to WSIS 2005 World Summit Outcome the roles of ICT in development are further captured in Resolution 64/187 of the UN General Assembly, of 21 December 2009, on information and communication technologies for development. The resolution recognized the importance of partnerships with all relevant stakeholders in enhancing access to ICT and that ICT have the potential to provide new solutions to development challenges, particularly in the context of globalization, and can foster economic growth, competitiveness, access to information and knowledge, poverty eradication and social inclusion that will help to expedite the integration of all countries, particularly developing countries, into the global economy.

7. The resolution also stresses the important role of Governments in the design of public policies and in the provision of public services responsive to national needs and priorities through, inter alia, making effective use of information and communication technologies, on the basis of a multi-stakeholder approach, to support national development efforts.

8. On the regional level there has been the Communication Action Plan (CAP, 1999), Pacific Islands ICT Policy and Plan (PIIPP, 2002), the Pacific Plan Digital Strategy (PPDS, 2005), and now the Framework for Action on ICT for Development for the Pacific (2010).

Call for Action

9. The 'Framework for Action on ICT for Development in the Pacific' (FAIDP) has been formulated in response to the call from Pacific Leaders at the 40th Pacific Islands Forum in Cairns (August 2009) for the Pacific Plan Digital Strategy (PPDS) to be reviewed and updated. This direction reaffirmed the continuing importance of ICT as a tool for development in the region and further supports the ICT Ministers' Wellington Declaration where they declared that *'We recognize that information and communication technologies (ICTs), while not an end in themselves, have a key role as a basis for economic development, while also promoting and enhancing social cohesion, cultural enrichment and environmental conservation'*.

Preparation of the Framework

10. In response to the direction from the Forum Leaders the Pacific Islands Forum Secretariat (PIFS) commissioned a review of the PPDS. The identified gaps and recommendations from the PIFS review, the outcome of the ITU assessment of Pacific national ICT policies, inputs from the CROP¹ ICT WG² and development partners, and more importantly inputs from PICTs contributed significantly to the development of the FAIDP.

11. The process was led by the Secretariat of the Pacific Community (SPC) in collaboration with the Council of Regional Organizations in the Pacific (CROP) ICT Working Group and development partners.

12. The 'gaps' identified in the review of the Digital Strategy and addressed in the framework includes:

- Need for fair competition;
- Lack of coordination;
- Low internet, fixed and mobile penetration;
- Lack of capacity and resources;
- Lack of cyber legislation;
- Lack of e-applications including in Government, Health, Education, and Agriculture;
- The expense of international bandwidth continues to be a major issue;
- Lack of ICT data and information (including researches); and
- Lack of ICT in schools and ICT studies in schools' curriculum;

13. The Framework was endorsed by the Pacific Regional ICT Ministers in their Tonga Declaration and requested SPC to coordinate the implementation of the Framework.

Framework for Action on ICT for Development in the Pacific

Guidance

14. The framework is to provide guidance to PICTs to enhance their national efforts to achieve accessible and affordable access to ICT and, keeping in line with principles of the Pacific Plan, to clarify how regional services through ICT can assist countries' sustainable development, socio-economic growth, governance, and security, and in particular implement their national plans.

Guiding Principles

15. The framework has 12 guiding principles that provide parameters for the relevance and appropriateness of regional initiatives and the modality of engagement between partners, and between partners and PICTs. These guidelines also include consideration of the region's challenges, appropriate technologies, climate change, gender and cultural issues, and sustainable livelihoods as well as the need for leadership, improved coordination and planning, capacity development, and monitoring and evaluation strategies.

Themes

¹ CROP - Council of Regional Organisations in the Pacific

² Members include CROP agencies and Pacific Islands Chapter of the Internet Society (PICISOC) and Pacific Islands Telecommunication Association (PITA)

16. This framework outlines seven themes for action aimed at effectively utilizing ICT for sustainable development, governance, and improve livelihood of Pacific communities. This will be supported by a set of guiding principles, an integrated approach for a joint action plan for the region based on ‘many partners, one team implementation plan’, and with monitoring and evaluation mechanisms. Its purpose is to help guide future actions, policy direction, funding decisions and support the implementation of national policies and plans on:

- Leadership, governance, coordination and partnerships;
- ICT Policy, legislation and regulatory frameworks;
- ICT Human Capacity Building
- ICT Infrastructure and Access
- International Connectivity
- Cyber Security and ICT Application; and
- Financing, monitoring and evaluation.

17. **Theme 1 (Leadership, governance, coordination and partnerships)** recognises that strong leadership with appropriate governance mechanisms are needed to ensure that the benefits of ICT are fully realized and contribute to the livelihood of the people of the Pacific. Better coordination of ICT interventions are needed to ensure non-duplication of efforts and that limited resources are better utilized. To make a real difference key stakeholders need to come together to pool their resources and expertise to effectively implement the framework using a ‘many partners, one team’ approach.

18. **Theme 2 (ICT policy, legislation and regulatory frameworks)** recognises the importance of having a strong and effective policy and regulatory frameworks to create an enabling environment that promotes fair competition and conducive to achieving ICT for every Pacific Islander. Businesses, organizations and users need a high level of assurance that the digital infrastructure and networks are reliable and secure, and that appropriate legislative framework is in place to address cyber-crime and enable businesses to conduct online commerce.

19. **Theme 3 (ICT Human Capacity Building)** recognises that developing and retaining skilled users and professional ICT workforce is essential for sustainable social and economic development. Retention strategies need to be reviewed and considered to address increasing migration of Pacific skilled professional and the ‘brain drain’ in PICs. This will take efforts, commitment, resources, planning and need to be addressed at the regional, national, and organizational levels. Education is the key to sustainable local ICT capacity and expertise. Currently there are a number of barriers in the education sector including lack of schools, limited number of qualified teachers, and limited resources. ICT can play a crucial role in addressing these barriers including provision of online resources, computer based training, online courses and distance education.

20. **Theme 4 (ICT Infrastructure and Access)** recognises that most PICTs have poor infrastructures including ICT and Energy. ICT need power to operate and it’s crucial to build stronger cooperative mechanisms between the two sectors. Rolling out accessible and affordable energy in PICTs particularly rural areas and remote islands is a regional priority and are addressed in the Framework for Action for Energy Secure Pacific (FAESP). Most of the PICTs are spread over a wide area and thus this tyranny of distance is a major obstacle in providing domestic connectivity due to capital costs involved. Furthermore most PICTs have small population and thus lack economy of scale and consequently have limited investment in improving these infrastructures. The costs of ICT are still high and solutions like shared facilities (e.g. telecentre, cybercafé) are the most viable. These are but some of the challenges that need to be addressed to build appropriate ICT infrastructure and provide accessible and affordable access to ICT.

21. **Theme 5 (International Connectivity)** recognises that the expense of international capacity continues to be a major issue. There remains heavy reliance on satellite services for the very sparsely distributed, relatively small, regional populations. PICs in general find satellite costs high and are still seeking ways to reduce these costs. Submarine connectivity is a high priority for many PICs but once again cost is a major challenge. Due to the high cost associated with its deployment, international connectivity via submarine cable remains relatively limited in PICs. To ensure continuing international connectivity PICTs need to start planning to minimize risks of transition to IPv6. PICTs should also plan to maximise opportunities for more effective and efficient service delivery using IPv6.

22. **Theme 6 (Cyber security and ICT Applications)** recognises that cyber security is essential as we become more dependent on ICT and its growing pervasiveness in our daily lives. Businesses, individuals and organizations need to trust digital networks so they can use them with confidence. Users need a high level of assurance that the digital infrastructure and networks are reliable and secure, that private information and sensitive data held online is protected, that their online experience will be safe and secure, and that government law enforcement agencies are well equipped to combat cyber-crime. Furthermore, it recognizes that ICT can promote greater transparency and more efficient, effective and accessible services. With the increasingly pervasiveness of ICT, and more specifically the Internet, in our daily lives it is essential that government and private sector services to the public and to each other are computerized, secured and where possible be made accessible through the Internet.

23. **Theme 7 (Financing, monitoring and evaluation)** recognises the importance of ensuring a coordinated approach to financing the ICT sector and of having a robust monitoring and evaluation (M&E) framework to measure performance across the whole sector against agreed milestones at both national and regional levels.

e-Agriculture

24. The Pacific countries still have low teledensity (average 10%) but growing penetration in the mobile density especially in Pacific countries with open telecommunication market. These countries (Tonga, Samoa, Fiji, Vanuatu, Solomon Islands, PNG, Palau (non-regulated)) are facing impressive growth to around 50% and with some having close to 100% geographical coverage.

25. The high mobile density provides an opportunity to reach rural and remote communities and, more importantly for the agriculture sector, the farmers. Through mobile phones you can disseminate agricultural information, advices, and weather forecasts.

26. You can also use mobile phones to address lack of financial institutions coverage in the rural areas. With mobile phones you can transfer funds to and from other mobile subscribers and with the growing coverage of the mobile network. This will facilitate local commerce and ensure that farmers can access financial information.

27. Mobile phones and Knowledge and Learning Community Centre (KLCs) can improve agricultural information sharing and increase the quantity and quality of agricultural information available, improving food production, enhancing food security and eventually enhancing market participation. This could also contribute to more informed policy decisions in countries. Mobile phones can be seen as the most appropriate and speedy methods of receiving and circulating information throughout the Pacific region.

28. Online agriculture information – AGORA – Access to Global Online Research in Agriculture

29. Telecentre – added value services in partnership with other important sectors such as Health and Education to ensure its sustainable

30. Better and affordable communication and can contribute to building stronger communities and address local migration to cities.

Land Resources Division – Current initiatives and New Initiatives linked to the ICT framework

30. **Empowering farmers through the use of Mobile technologies and knowledge learning centres.** Agriculture is identified by Pacific Island Countries and Territories (PICTs) as a priority economic sector for development. With food security placed on the international and regional agenda as a major development priority, agricultural development has become even more critical both at the political and economic level. While the Pacific is committed to refocus its effort and resources to address the issue of food security, there are major constraints. Much of these relate to a tight fiscal situation which results in poor delivery of information by Ministries of Agriculture and outreach services. Reduced budgets to agricultural ministries particularly to extension services, has more or less reduced the importance of such services, and hence there is of critical shortage of trained extension and outreach service providers.

31. Expanding the access of PICTs to relevant information via the adoption and use of relevant information and communications technologies, particularly through information and communication technologies, can bring about a positive difference in farmers quality of life and also strengthen the local and national economy. The introduction and implementation of knowledge and learning centres and the use of mobile technologies in different parts of the rural areas can greatly improve agricultural information and knowledge sharing, which can ultimately result in improving the lives of Pacific island communities. For policy makers, the availability of reliable and relevant information is critical for addressing the issue of climate change and food security.

32. With the tremendous growth in telecommunications and computing such as wireless technologies, mobile telephony, web services - the digital divide is still widening between the urban and rural/remote areas of the Pacific. There is a need to close these digital gaps, locally, nationally and regionally with policies that focus on national priorities and on areas that will have the maximum impact of ICT development. For policy makers, the availability of reliable and relevant information is critical for addressing the issue of climate and food security.

33. A project proposal has been formulated to seek to improve the accessibility, quality and relevance of advisory services provided to farmers/growers to allow them to effectively participate and adapt to a dynamic regional marketing requirement. The key objectives of the project are: (i) address the need to deliver information to farmers using low-cost and assistive mobile technologies; (ii) evaluate the use of mobile technologies in improving technical assistance as market information, to farmers in three pilot countries, and (iii) assess the use of mobile technologies in enhancing policy making.

34. To achieve this project, the project aims to establish Knowledge and Learning Community Centre (KLCs) in 2 pilot countries, namely Fiji and Tonga. The project will also provide easy access to mobile technologies and train existing extension officers and communication staff of agricultural ministries to effectively operate and manage the KLCs. The project is expected to assist farmers to improve sustainable crop production thus increasing food production, improving market information and at the same time addressing the issue of food security. At the policy level, the collection and storage of information will aid the agricultural and forestry departments in the three pilot countries to make more informed and evidence policy making in the area of sustainable agricultural development, food security, environmental challenges and facilitation of trade.

Fiji Islands, Ministry of Primary Industries, Market Information Systems (MIS) – new initiative

35. SPC in collaboration with United Nations Conference on Trade and Development (UNCTAD) organised a stakeholder meeting on the 3rd of March 2010 at the RMC training Room, SPC. The meeting was attended by Ministry of Primary Industries, Fiji Chamber of Commerce and Industry, Fiji Manufacturers Association, EU, Koko Siga, UNDP, Fiji Islands Hotel and Tourism, Pacific Islands Private Sector Organisations, Ministry of Commerce, Business, Development and Investment, Ministry of Primary Economic Planning and Statistics,

36. The stakeholders meeting were in reference to the implementation of the market information system in Fiji is a part of AAACP (All ACP Agricultural Commodities Programme) financed by the European Union. The Global Working Plan (GWP) of the Programme identified UNCTAD as a provider of a genuine software INFOSHARE in Fiji (according Tranche I activities) and in a sub-region (Tranche II activities recently approved by the Coordination Unit (CU) of the project). The Secretariat of the Pacific Community (SPC) was nominated as a focal point for the implementation of Programme's activities in the region. As a result of the meeting, SPC and UNCTAD are closely working together on the implementation of AAACP and ensuring stakeholders participation with relevant key stakeholders.

37. The aim of the project is to improve the provision of quality market information to stakeholders involved in the production of fruits and vegetables in Fiji, and to facilitate improved markets for domestic produce. As a follow up, a training workshop will be organised in November for all stakeholders on the use of the UNCTAD INFOSHARE database. INFOSHARE is a database system for gathering and sharing information on commodity prices (including farm, export and import prices).

38. SPC is looking at integrating an sms (via mobile) system with the infoshare database. The SMS system will disseminate short bulk texts updating farmers, traders and exporters:

- Pest and disease information
- Regional Price information
- Transport Cost information
- Road conditions
- Weather outlook
- Current market activity in each commodity
- Future market opportunities

Tonga – The use of mobile phones and helpdesk system – new initiative

39. The Food and Agriculture Organization of the United Nations has financially contributed an amount to LRD-SPC in support of a pilot project in Tonga under the Pacific Islands Extension Network (PIEN), a component for the project title: “Improving access of farmers to agriculture information through the use of ICTs.”

40. The activities for which the funds provided by FAO are as follows:

- Establishing an agriculture information call centre in Tonga
 - Publication of at least 90 extension leaflets on selected crops and livestock subjects in electronic format
 - Purchase of desktop computer, helpdesk software, printer, scanner, CD copies to be used for setting up help desk at Ministry of Agriculture in Tonga
 - Purchasing mobile phones for extension staff to be used to promote the help desk
 - Support in promoting the help desk for farmer in Tonga

Pacific Agriculture and Forestry Policy Network (PAFPNet) – Youth in Agriculture Strategy

41. There is considerable scope for encouraging youth participation in information and communication technologies (ICT) as a way of supporting business ventures in relation to agriculture. If youth can be provided with sufficient support, and have access to credit, low-cost appropriate technology can be the basis of successful enterprises. Globally, a growing number of examples of low-cost technology such as the one laptop per child (OLPC), mobile phones, fax machines and low cost computers linked to the internet are being used by rural youth to establish small kiosks or knowledge and information learning centres, with low start-up costs, to provide communication services to their communities.

42. There are already examples in the region of farming groups using ICT for improved marketing by community-based enterprises directly or through partner organisations. The rapid increase in mobile phone coverage in the region and the increased services – such as mobile banking – that phone companies are offering allows farmers to contact buyers more cost effectively and has potential to reduce the costs of financial transactions. There are also plans to develop mobile phone services further to enable farmers to access up to date market price information from their communities.

43. One way to improve youth's participation, and access to ICT's is through increased awareness of ICT policy makers and ensuring that young people participate in the formulation of policy and advocacy. Contributing to ICT policies should not be in isolation, as it should be encouraged across other sectoral policies, be it education, health, trade, etc.

44. Youths have an appetite to learn about the world they live in, but are inevitably prone to isolation and seclusion when living in remote communities without access to ICT. It's challenging to help narrow the digital divide, fighting inequality of wealth and technology and providing our youths with an opportunity to lift themselves and their communities out of poverty.

45. Young people should campaign through radio programmes, tv programmes, newspapers and also through modern ICTs and internet tools. They should be encouraged to come together and share their experiences and concerns. They should be able to advocate for their rights and campaign for the changes from grassroots to national level.

46. Young people are looking for opportunities to access information and knowledge. Providing access to knowledge and information is fundamental and it will bridge the information divide between people who have access to information and people who don't have access.

PAFPNet activities

47. PAFPNNet in collaboration with The Technical Centre for Agricultural and Rural Cooperation ACP-EU (CTA), organized an essay writing contest on "Youth and ICTs in Agriculture and Rural Development". This is the first activity of the project "Agriculture, Rural Development and Youth in the Information Society" (ARDYIS) initiated by CTA; this project aims at raising the awareness and capacity of youth on the issues of rural and agricultural development for ACP³ Africa, Caribbean, and Pacific) countries through new Information and Communication Technologies (ICTs).

- The contest aimed at identifying innovative solutions on challenges faced by youth in agriculture and rural areas using ICTs in the Pacific. The essay contest will contribute to raising youth awareness on the potential and opportunities of ICTs in agriculture and rural areas. The contest was open to young people, aged 18 – 25 from ACP member countries. An international panel of judges, made up of experts in ICT, agriculture and rural development will be set up to review entries. The selection process and prize awarding will be conducted as follows: In the first instance, the best two (2) essays from each of the six ACP regions (West Africa, Central Africa, Southern Africa, East Africa, Pacific and Caribbean) will be pre-selected. The 12 finalists will participate in an international meeting on rural development⁴ where, apart from attending the sessions, they will make an oral presentation of their submission before an international jury.
 - Regional Winner Prizes -- Based on oral presentations, prizes will be awarded to the best entrant from each region ("East Africa Prize", "West Africa Prize", "Central Africa Prize", "Southern Africa Prize", "Caribbean Prize", "Pacific Prize"). Thus, there will be 6 regional winners. Each of them will receive a cash prize of 1000 € (one thousand Euros).
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- Overall ACP Winner Prize --- From the regional winners, another round of selection will be conducted to choose the “ACP Prize”, as the culminating award of the competition. The winner selected will receive an additional prize of 500 Euros (five hundred Euros); the author of the best essay from all regions will then receive 1,500 Euros in total. Applications were sent to CTA by email by 15 August. Finalists (the 12 authors pre-selected) will be announced in mid-October 15 October 2010. Oral presentation and final selection of winners will be made in November 2010.

48. PAFPNNet web page under LRD website – maintained and updated by PAFPNNet web administrators. All publications, policy briefs and articles have been documented on the PAFPNNet webpage

49. PAFPNNet wiki – was developed by PAFPNNet administrators to allow easy, creating and editing of PAFPNNet pages by members. The idea is to create a knowledge sharing system for PAFPNNet members to express their views and opinions on the PAFPNNet project.

50. A blog is currently being developed to allow PAFPNNet members and users to share their thoughts on topics related to youth, gender and agriculture etc. A blog is based on web 2.0 framework/technologies and is easier for people to post text, photos and videos related to agriculture. All success stories related to youth in agriculture, youth using ICTs to do agriculture will be documented on the blog site.

51. A workshop/seminar on the use of web 2.0 technologies for agriculture and rural development is planned for November 2010.

52. Promoting the use of web 2.0 technologies to create awareness on Agriculture and rural development. PAFPNNet administrators have created a Youth in Agriculture Facebook social networking community page to create awareness on agriculture activities and ensure a collaborative and social, community space for members of PAFPNNet and other users interested in Youth in Agriculture.

53. PAFPNNet e-News - The Pacific Agricultural and Forestry Policy Network Newsletter is now available online and it is the first PAFPNNet Newsletter to be developed. The issues on the newsletter focus on youth involvement in agriculture and the role of the media in agriculture and rural development in the Pacific.

Internet Governance and ICT Policy

54. SPC (LRD and EDD division) is in the process of organising a consultation and awareness meeting on Internet Governance and ICT Policy in Fiji. As part of the Secretariat of the Pacific Community’s engagement and assistance to Fiji, SPC in collaboration with Diplo Foundation, Geneva, Switzerland is organizing **Consultation and Awareness on Internet Governance and ICT Policy in Fiji** to be held at the Holiday Inn, Suva, Fiji on September 01 – 02, 2010.

55. “The UN World Summit on the Information Society (WSIS) defines Internet governance as the development, formulation and application by Governments, private sector and civil society, in their respective roles, of shared principles, norms, rules, decision-making procedures, and programmes that shape the evolution and use of the internet.”

56. The focus of the consultation is to build capacity in Internet Governance (IG) and Information and Communication Policy (ICT) policy. It is one out of five workshops planned for regional and sub-regional Institutions in ACP countries. This consultation is part of a broader capacity development programme in collaboration with seven ACP partner institutions to train key beneficiaries and institutions who are dealing with Internet Governance and ICT policy issues at the national, regional and global levels.

57. The consultation will be organised in 2 sessions:

- 1st September – set aside for the Ministers and Permanent Secretaries, Senior Officials of the Government Ministries and Regional organisations, Educational Institutions, Regulators (e.g. TFL/Fintel etc.)

- 2nd September will be open to various organisations within Fiji, including NGOs that deal with ICT and Internet Governance. The participants will need to register before the closing date.

58. The overall objective of this consultation is to improve stakeholders' knowledge of ICT and Internet Governance issues, actors, opportunities and processes within their respective institutions particularly at the national and regional levels through capacity building training and knowledge sharing.

59. ICT and Internet Governance play an important role in developing an informed society and the shaping of perception of the role of agriculture experts and scientists. With the rapid development of the internet, the use of web 2.0 and social networking tools such as blogs, facebook, content management sites have become the era of converged media such as broadcasting via online services e.g., a success story on a farmer can be documented on a web page and be well developed with video clips of farming practices and relevant graphics. The term E-agriculture was identified in the World Summit on Information Society (WSIS) in 2005 as an emerging field in agriculture which focuses on the use of ICTs for agriculture and rural development in the Pacific.

60. The Ministers of Fiji and representatives of the various Ministries including the Ministry of Primary Industries, Information and Communication section together with other regional and International organisations are participating in the consultative meeting. The idea is to have a multi-stakeholder approach in ensuring that everyone is aware of the Internet Governance issues and having an input in the ICT policy with the focus on the need to have up to date information and knowledge of agriculture through the use of ICTs.

61. Rural and remote areas in the Pacific region, have limited access to agricultural knowledge base information developed by SPC (LRD) and/or PICT Ministry of Agriculture. Farmers need relevant and timely information that provides technical assistance on pest/diseases, proper management practices, appropriate post harvest techniques and handling and packaging. As a result, there is a need to find immediate solution to overcome the problem of getting timely information on sustainable agricultural practices. While the use of ICT policies and Internet has played an important role in the dissemination of information throughout Pacific communities, its application in the agricultural sector remains relatively under-utilised.

62. The consultation and awareness on Internet Governance complements the SPC Framework for Action on ICT for Development in the Pacific.

Recommendations

63. The officials of the Head of Agriculture and Forestry Services are invited to:

- Acknowledge that ICT is an important tool that can contribute to the development of the Agriculture and rural development sector;
- Note the 'Framework for Action on ICT for Development in the Pacific in assisting the agriculture sector';
- Note the LRD ICT initiatives in Agriculture and Rural Development