



**Global
Forum**
on Food Security
and Nutrition

 Proceedings

The future of food security and climate change in Viet Nam, Malawi and Zambia: scenarios, outlooks and challenges in the next 30 years

Collection of contributions received

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Introduction to the topic

Dear colleagues,

Please join us in the **online discussion on “The future of food Security and climate Change in Viet Nam, Malawi and Zambia: scenarios, outlooks and challenges in the next 30 years”**.

The discussion aims at exploring the current, foreseeable and likely relationships between climate change adaptation, climate change mitigation and food security in the three countries and has been set up by FAO’s [Economics and Policy Innovations for Climate-Smart Agriculture \(EPIC\) programme](#) in collaboration with the CGIAR programme on Climate Change, and Agriculture and Food Security (CCAFS) and with support from the European Commission.

FAO’s [EPIC programme](#) works with governments, research centres, universities, farmer’s unions, civil society and other institutional partners to support countries transitioning to Climate-Smart Agriculture (CSA) by using sound economic and policy analysis. It is a programme of work started in 2012 aimed at identifying and implementing climate-smart agricultural policies, analyzing impacts, effects, costs and benefits as well as incentives and barriers to the adoption of climate-smart agricultural practices. The ultimate objective of the programme is to support developing and in-transition countries to formulate agricultural investment proposals to increase resilience to climate change and promote CSA.

EPIC is working in Malawi, Viet Nam and Zambia to secure the necessary policy, technical and financial conditions that enable them to sustainably increase agricultural productivity and incomes, build resilience and the capacity of agricultural and food systems to adapt to climate change, and seek opportunities to reduce and remove GHGs to meet their national food security and development goals.

In 2013 the programme carried out, in collaboration with CCAFS, a series of participatory scenario building workshops in each of the three countries. The workshops, which were attended by more than one hundred practitioners, academics and policy makers, looked at the relationships between climate change and food security and identified some of the most pressing drivers that will likely affect food security in the next 30 years (see reports on [Vietnam](#), [Zambia](#) and [Malawi](#)). A follow up series of scenario workshops is being planned to take place in May 2014 to validate earlier formulated scenarios and their quantification as well as to stress-test investment proposals drafted. The scenarios have been developed to explore diverse futures for Malawi, Zambia and Viet Nam, each of which poses different challenges and opportunities for development and agricultural policies. Therefore, the scenarios are a tool to help think of the implications of policies and investments and improve strategic planning through the questions they can be used to ask.

This online discussion aims at continuing the work initiated at the first round of workshops and to engage in a constructive dialogue everyone interested in climate change and food security with a specific interest and competence on [Malawi](#), [Zambia](#) and/or [Viet Nam](#).

The outcomes will feed into the preparation of the second round of workshops which will be held as follows:

- 8-9 May 2014 Malawi

- 8-10 May 2014 Viet Nam
- 20-21 May 2014 Zambia

The main questions proposed in the consultations are:

What do you think are the main drivers of and obstacles to development for [Malawi](#) / [Viet Nam](#) / [Zambia](#) in the next 30 years?

Keeping in mind that each scenario represents an extreme future, how plausible do you think the scenarios for [Malawi](#)/[Viet Nam](#)/[Zambia](#) are? What would you like to add/change in each scenario to make it more plausible from your perspective?

What solutions would support the drivers of the best scenario and help overcome obstacles encountered on the way? How about overcoming the challenges of the worst scenarios?

What are the key first steps needed to get a change process in motion, and who needs to be involved?

Please go to the page dedicated to the country of your interest to see the scenarios and to respond to the questions.

The online consultations are open to everyone interested in the subject for three weeks, until Wednesday, 9 April 2014.

To participate and for additional information on this initiative please visit: www.fao.org/fsnforum and www.fao.org/climatechange/epic; or contact us at: fsn-moderator@fao.org

Please feel free to circulate the invitation within your professional networks or to suggest us people you think would be interested in taking part in online-consultation.

We look forward to receiving your comments, suggestions and inputs!

Your EPIC Team

Contributions received on Viet Nam

1. John Weatherhogg, Italy

- 1) Urbanisation, industrialisation. Vietnam will follow the model of Japan and South Korea. In agriculture problem of structural change and increased mechanization.
- 2) The first scenario (Land of the Golden Mekong) seems most likely to me, although I am not convinced that they will want to integrate as the scenario describes.
- 3) Vietnamese are generally industrious and pragmatic. Therefore (with luck) not likely to get involved in the more extreme scenarios. Biggest potential problem will be risk of conflict between China and USA and their allies – perhaps due to tensions over China/Taiwan or Japan relations. This would be a threat on a global scale.

2. Soojin Kim, FAO, Viet Nam

1. What do you think are the main drivers of and obstacles to development for Vietnam in the next 30 years?

One of the main drivers of development in Vietnam is increased market linkage through free trade agreement such as Trans Pacific Partnership and regional economic collaborations, creating market opportunities to Vietnam.

Major obstacles to development include the following: 1) risks of falling into middle-income trap; 2) inequitable and uneven growth in sectors and regions; 3) depletion of natural resources.

2. Keeping in mind that each scenario represents an extreme future, how plausible do you think the scenarios for Vietnam are? What would you like to add/change in each scenario to make it more plausible from your perspective?

The most plausible scenario seems to be the Doreki dragon based on its descriptions and its main drivers to change. It is likely that Vietnam will have a common regulated market due to emerging pressures from external buyers on quality assurance and social and environmental standards. Strong regional economic collaboration is also observed to a large extent that will create more market opportunities for Vietnam.

The scenario would be more plausible if the following inputs are taken into account:

Higher degree of public and private investment is expected, however, will be concentrated on selected industries and regions. Agriculture production will be lagged behind, due to the lack of value added from producing raw materials and exhaustion of productive natural resources. Lowland areas near metropolitan cities will likely to receive more investments than other regions. Consequently, highlands of Vietnam will become poorer without benefitting from investment.

3. What solutions would support the drivers of the best scenario and help overcome obstacles encountered on the way? How about overcoming the challenges of the worst scenarios?

In order to avoid the obstacles described in the most plausible scenario (the Doreki dragon), the following solutions would be needed. Avoiding middle-income trap, in other words, uneven and unsustainable growth that benefits certain geographic regions, social groups, and industries/sectors would require radical policy reforms and massive increase in internal value, especially on land and resources productivity. Switching from raw material based and export oriented economy to more value added and resources efficient agricultural production is an urgent task. For example, massive land conversion for rubber plantation must be strongly discouraged than value added product production from latex, by creating unfavorable investment conditions. In addition, as increased economic ties within the region can bring greater and/or harmful impacts to vulnerable groups, small holders, specific measurements to compensate the losers of such changes must be devised.

4. What are the key first steps needed to get a change process in motion, and who needs to be involved?

Proactive voices and initiatives from diverse stakeholders, especially private sector that drive a radical policy reform, administered by the government will be needed as a key step.

3. Nguyen Van Linh, FAO Viet Nam

1. What do you think are the main drivers of and obstacles to development for Vietnam in the next 30 years?

Main drivers for the development in Vietnam will be market linkages and regional economic collaborations with more foreign investments in Vietnam. These drivers shall also influence agriculture sector with the change of policies on food production (reduction of rice and increase of other cash crops such as maize, soybean, fruits and vegetables, etc). Land-use changes (more land allocated for cash crops than rice, land for industrialization, etc.) and land concentration in agriculture will gradually be a trend for modern farming and commercial production.

Major obstacles to agricultural development: 1) slow economic growth as a result of global crisis; 2) low agricultural product prices leading low incomes for farmers; 3) over demand of some commodities resulted from weak market forecast and poor policies; 4) weakness in food quality management/control; 5) increasing damages from climate shocks.

2. Keeping in mind that each scenario represents an extreme future, how plausible do you think the scenarios for Vietnam are? What would you like to add/change in each scenario to make it more plausible from your perspective?

All four scenarios seem reflecting trade/market relation within ASIAN and/or between ASIAN countries (in which Vietnam is a member) with China and other global actors (USA and EU) as important markets for future agricultural products. In this scene, the most plausible scenario seems to be **Buffalo Buffalo; water flows uphill, but low incomes for food producers are still expected during the next 30 years, leading to a reduction of food production (especially rice) in the country.**

3. What solutions would support the drivers of the best scenario and help overcome obstacles encountered on the way? How about overcoming the challenges of the worst scenarios?

Good policies on land use management and trade will help keeping trade-off between food and other crop production while increasing farmer's incomes. Previous experiences for Vietnam agriculture show low income for rice farmers and the country have imported many other agricultural products (it was estimated that Vietnam rice export value in 2012 was just the same value of imported food and other agricultural products such as maize, soybean, etc for animal feed).

4. What are the key first steps needed to get a change process in motion, and who needs to be involved?

The government leads the process with appropriate policies to encourage the participation of private sector.

Nguyen Van Linh, PhD

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4. Trinh Mai Van, Institute for Agricultural Environment, Viet Nam

1. What do you think are the main drivers of and obstacles to development for Viet Nam in the next 30 years? (see the list of drivers and obstacles in each country below)

The main drivers:

- Influences of the world, regional and neighbor countries (e.g. China) economic
- Industry and real estate are also the strong drivers in the next decades
- Exporting agricultural products
- Increasing population associated with high food consumption

The obstacles

- Resources exhausting
- Land reduced due to climate change (sea level rise, drought...)
- Agricultural production reaching ceiling level
- Degradation of land and water

5. Joost Vervoort, University of Oxford, UK

Thank you all for your comments so far - it is very interesting, though not unexpected, to see that different individuals have different ideas of what the scenario is that they see as most likely to develop. This is one of the reasons it is useful to work with multiple scenarios and focus on whether they are telling plausible stories and posing useful challenges to decision-making. The comments on drivers and change processes are very useful.

Many thanks! Joost

6. Pham Thi Sen, NOMAFSI, Viet Nam

1. Question 1:

Main drivers:

- Globalization and increased threats of being "vanished" if not developed, increased markets for agricultural products, increased opportunities for development, acquirement and application of technologies.

- Demographic development with increased skillful and educated manpower.

Main obstacles:

- Moral recession: declined moral standards, reduced sense of responsibility for the community development.

- Others obstacles, as other people already mentioned.

2. Question 2:

- All of the scenarios seem to be plausible in certain way, and the first one "Land of the Golden Mekong" is the most likely for me. However, how to make the markets commonly regulated and the regional collaboration strengthened is still not clear; need more inputs from the scenarios "builders".

3. Question 3:

Solutions:

- To increase the sense of community responsibility together with increase the production; both "sense" and "matter" at the same time.

4. Question 4:

First step:

- To get the policy makers and the decision makers involved in the scenarios building and aware of the obstacles and drivers to the country's development.

7. Ho Son, Thai Nguyen University, Viet Nam

Main drivers of development for Vietnam in the next 30 years could be privatization of state owned enterprises, opportunities from TPP and other trade agreements, and reform initiatives taken by governments.

Main obstacles could be the slowness of privatization/reform process as mentioned above, risks from not able to take opportunities provided by trade agreement (TPP and others), risks from mismanagement of environment (water pollution, over-exploitation of natural resources), and risks from climate change associated impacts.

Scenario 1 is the most plausible for Vietnam although I do not agree with all of it.

8. Ghose Bishwajit, China

Vietnam will require to understand the growing resource and economic realities of the SEA region and in Asia as well. Water and land are already becoming elements of dispute in South Asia and China. More strategic land and water resources administration policies is certain a vital necessity. Strengthening regional cooperation and maintaining good neighbour attitude contributes greatly to economic development. Food security and healthcare related issues remain top priority in the overall development agenda.

As an agribased economy and major producer and exporter of rice, Vietnam also faces the imperatives to develop more sustainable agribusiness models to better cooperate with international business partners.

Since a large number of population is living below poverty line, both government and private sector need to work together to mainstream them more effectively into the national economy. Community-based capacity building programs can have promising outcomes in this respect.

9. Nghia Lee, FAO, Viet Nam

1. What do you think are the main drivers of and obstacles to development for Vietnam in the next 30 years?

a. Main drivers for the development of Vietnam in 30 years

- macro-environmental drivers that create the broad context for the development of Vietnam: (1) Industrialization and modernization policies will promote (2) advanced technology application (including information technologies, material technology and energy technology), (3)

establishment of multi-lateral trade treaties (at regional and global levels) and thus leading to (4) an integratedly sustainable economy. The (5) stable political condition will ensure the national security for sustainable and stable development of Vietnam

- Micro-environmental drivers that will affect particular elements of the development of Vietnam: (1) young and well trained population will play an important role in promoting economic development. (2) Proper policies relative to climate change adaptation and mitigation, sustainable agriculture, and environmental sustainability will drive development of Vietnam positively. (3) Policies to develop and exploit new energy sources, such as solar energy and bio-energy, will ensure energy security for development.

b. Obstacles for the development of Vietnam in 30 years

- Depletion of natural resources (land, water, air, forest etc.)
- Pressure from population increase
- Increasing extreme weather events (droughts, floods, temperature rise, sea level rise, etc.) with more severe damages
- Impacts from other strong economies (competition between domestic products and imported products)
- unpredictable inflation, economic crises
- Inequality in human and natural resource distribution, in development between regions, sectors.

2. Keeping in mind that each scenario represents an extreme future, how plausible do you think the scenarios for Vietnam are? What would you like to add/change in each scenario to make it more plausible from your perspective?

To me, the Doreki dragon is the most plausible scenario. Since Vietnam is planning to promote GM food production we are looking forward to have a more effective and more profitable agriculture sector that aims at ensuring our future food security and contribution to GDP from Agriculture production.

In addition, Vietnam is already a member of regional and international trade collaborations that all most all products from governmental and private companies are able to reach outside markets contributing considerably into the National GDP. Farmer households have to join bigger cooperatives that their production is secured and ensured the output markets.

However, since then, the urbanization, industrialization and modernization will be likely to cause the depletion of environment, natural resources leading to wide gaps between socio-levels, urban and rural, city and remote, famers and officials, et. Similarly, with increasing changes in climate

more farmers are vulnerable to severe impacts of climate shocks and therefore those farmers find it difficult to deal with/adapt to climate change in the scenario.

The scenario therefore would be more plausible if we advocate Vietnam to have more policies to support poor and the vulnerable farmers, especially woman and children, to adapt to climate change and economic changes. These supports should come from government, civil society organizations, private sector, Non-Governmental Organizations etc.

3. What solutions would support the drivers of the best scenario and help overcome obstacles encountered on the way? How about overcoming the challenges of the worst scenarios?

In order to support the drivers to overcome the obstacles in the Doreki dragon scenario, we can propose following solutions.

- Having comprehensive and complete policies on climate change adaptation and mitigation that can help to avoid risks, shocks and damages from unpredictable changes in climate.
- Having good policies in environmental and natural resource protection to manage exploitation environmental goods, and avoid depletion of natural resources.
- Having good economic policies that support poor and vulnerable people to adapt to economic crisis, to climate change and natural hazard.
- improving awareness and knowledge of population on climate change and its impacts of economic development and production, especially agriculture production. Introduce new and better livelihood activities that poor people can apply to improve their income and living condition.

4. What are the key first steps needed to get a change process in motion, and who needs to be involved?

Need assessment for Vietnam at all levels that can work out the urgent issues need to be dealt with. Base on findings from need assessment we can propose appropriate initiatives, suitable policy reform and better administration works for development of Vietnam and these should be the first key steps.

10. Kien Nguyen Van, Plant Resources Center (PRC), FAO, Viet Nam

Dear all,

1. I think that the main drivers of development for Vietnam in the next 30 years is models of public and private partners (PPP) in agriculture and rural sector while the PPP should be considered as service providers for the agriculture and rural sector from policy, legal,

capital, technology and science, planning, forecast, processing, value chains, correct information and needs, and the most important things are Vietnamese trademarks development, land accumulation, educated/trained labors with cheap cost. And main obstacles to this sector is poor/low facilitation with lack of information, planning.

2. For this, I think that all scenarios can happen but they can appear, change each to others belong to economics, social situations. Because historically events proofed that there is no a perfect scenario for a prepense future.

3. For solutions, of course government should mobilize and develop the private source in the sector as well as building institution and legal frame for the cooperation. A worst scenario can occur that is severely impacts of climate change/environment and backward policies in the sector, and competitiveness to Vietnamese agricultural products. This small scale production models should be maintained and developed to protect the dynamic and flexible of the sectors.

4. For key first step, Vietnamese government should invite the regional/international consultants/organizations and development institutions such as ADB, Worldbank, EU, US, Japan, China, India, FAO, WIPO, ect to consult for developing strategy/planning in the future and propose the commitments of partners in technical, capital, market issues and risks far away.

Best regards,

KIEN

Mr. NGUYEN VAN KIEN
Plant Genebank Management Division
Plant Resources Center (PRC)
Hanoi, Vietnam

11. Leslie Lipper, FAO, Viet Nam

General comments

Reading these inputs in addition to the outputs from the first scenario workshop is really quite illuminating and helpful in getting the big picture of the problems and challenges facing each of the three countries.

One of our biggest concerns in the EPIC team is developing climate smart agricultural investment plans that can generate effective and needed change in each country. To do that we are focusing on identifying key “delivery mechanisms” that need to be supported- and this dialogue is very relevant to identifying what those might look like. For example, I’ve been struck by comments for all three countries about the importance of educating and engaging young people as a key means of strengthening current and future capacity to effect change. Likewise, the importance of addressing and reversing natural resource degradation and depletion has come up in the dialogue for all three

countries – although here it is less clear what actions are likely to be feasible and effective. We also see that in all three countries there is considerable concern about increasing the effectiveness of institutions to support change – but there are considerable differences in what might be the best solution here.

Comments on Viet Nam

In Vietnam, the dominant theme is the importance of market linkages – both within and external to the country and the critical role of the private sector vis a vis the public sector role. The nature of international and regional agricultural trade agreements is clearly an important driver here, as is the development of public/private partnerships (PPPS) and the way that privatization of state assets is carried out. Ensuring good governance of market development – both internally and externally – and guiding the private sector to provide effect support are thus two key elements that I think need to be considered and to the extent possible, integrated into the work of building the CSA investment proposals.

A final issue arising from the responses to the dialogue for building the country CSA investment proposals is the importance of considering that there can be alternative futures in each country and that will have a big impact on the effectiveness of the CSA work. The question is then to structure the CSA investments so it can be effective under very different futures in the country – but that of course is very tricky! One thing I think likely to be effective under any plausible future is strong emphasis on youth education and training and so this should be given some emphasis in the proposals. Improving market governance and positive participation of the private sector seems a key issue in all countries as well, but of course this is more difficult to address through the channel of a CSA investment proposal. Specific action areas to support good market governance and private sector participation in the context of Vietnam are still important to identify.

While I think we have to be realistic about the role the CSA work and investment proposals can actually play in having a positive impact on larger issues of national development, we do need to think very carefully about the leverage the project and investments could have in promoting desirable future scenarios and be creative in building implementation structures that actually contribute to larger public goods such as effective market governance and more specific feedback on this would be very helpful as we move ahead.

12. Patrick Binns, Westbrook Associates LLC, USA

Dear FAO Moderator,

The primary driver of sustainable development in Vietnam will be expanded higher education of young women and men focusing on the managerial and scientific skills needed to implement environmentally integrated private enterprise solutions to future challenges. It will be critically important to develop new generations of entrepreneurial and technological leaders who will balance the pursuit of Return on Investment objectives with the imperative to restore and steward the nation's 'natural capital assets' of fertile agricultural land; fresh water resources; productive fisheries; and healthy ecosystem habitats that provide important environmental services to the common welfare.

With a particular focus on enabling long term food security under impending climate change stresses; Vietnam would greatly benefit from an increased priority to develop and use biofertilizers

and biopesticides that are produced by domestic suppliers. These environmentally benign, yet highly productive agricultural input technologies would support increased crop yields while reducing the costs and pollution associated with intensive use of chemical fertilizers and pesticides. There is mounting field evidence of the positive impacts of biofertilizers on a wide variety of crops and produce; and their potential to help Vietnam reduce its costs of importing synthetic inputs from foreign sources. The development of indigenous beneficial soil biota with plant growth promotion properties is well established in Vietnam and elsewhere throughout the world. What is urgently needed now is progressive and innovative private and public capital support to energize wide spread commercialization.

There is also an urgent need to address the serious threats to fresh water fisheries in the Mekong River Basin. A significant portion of Vietnam's protein food sources are harvested from the Mekong River and downstream coastal areas. However, there are major hydroelectric dam projects now under construction in Laos and China and many more in the planning stages that could seriously impair the survival of hundreds of fish species that migrate and spawn along the length of the river and its tributaries. The technical capabilities to build fish ladders and other fish migration waterways that could support the wide variety of fish in the Mekong Basin are largely unknown at this time. There should be an international, multilateral agreement to avoid disrupting the ecological habitats and migration processes of the Mekong's rich fishery resources; and an immediate consideration of more appropriately scaled and sited hydropower dams that could operate in a more healthy co-existence and balance with fisheries and the livelihoods and food security they provide to Vietnam and the entire SE Asian region.

13. Santosh Kumar Mishra, Population Education Resource Centre (PERC), India

What do you think are the main drivers of and obstacles to development for Viet Nam in the next 30 years?

1. **Drivers of development:** All players and stakeholders should be given fair and ample opportunity to be part of the programme (particularly those with the least resources or the greatest economic disenfranchisement).
2. **Obstacles to development:** Techniques for restoring degraded areas and sequestering soil carbon to enhance future productivity should increase or stabilize food production. Where the path to long-term sustainability means reducing productivity in the short term, economic incentives and transitional programmes will be required. Specific actions must be taken to assist those most vulnerable to long- and short-term increases in the price of food rather than relying on trickledown economic effects. Appropriate targeting of a portfolio of interventions at key points of vulnerability, such as meeting the food and nutritional needs of mothers and young children, will have disproportionately positive payoffs in future productivity and development.

Keeping in mind that each scenario represents an extreme future, how plausible do you think the scenarios for Viet Nam are? What would you like to add/change in each scenario to make it more plausible from your perspective?

Viet Nam: The core issue of food security in Vietnam is the problem of poverty. Food supply is pretty full (rice and other food) but there are still large numbers of people who lack income to buy enough food. The rice farmers suffer a major cost in the food security policy of the Government.

Growing rice is the most inefficient form of production for poor farmers if they want to increase their income. In some localities, income from rice is so low that farmers abandon fields if they are not allowed to convert land to other purposes. This makes negative impacts on the development of the country, land waste and does not help reduce poverty.

What solutions would support the drivers of the best scenario and help overcome obstacles encountered on the way? How about overcoming the challenges of the worst scenarios? (all countries)

Feeding the world in an equitable and sustainable manner must involve food production and the food system assuming a much higher priority in political agendas across the world. Shaping the debate around issues like jobs, economic development and public health rather than about “joint sacrifice” would be most effective. Government departments around the world should consider moving responsibility for water, food and energy into one department to improve effectiveness.

What are the key first steps needed to get a change process in motion, and who needs to be involved? (all countries)

There is a growing sense of urgency in establishing an effective and democratic agricultural system, which has in turn slowly given way to the emergence of various social movements and initiatives (such as the IPC) that highlight the importance of creating self-reliant local food systems. Food sovereignty is widely recognized as the right of all individuals to define their own agricultural policies, policies that are socially and economically appropriate in ensuring people’s physical and emotional well-being. This includes the right to food and the right to produce the food that’s necessary to sustain a society. For food security to be existent, it is paramount to ensure physical and economic access to a variety of food products that meet the dietary needs for a healthy living. There is need:

1. to ensure adequate food supplies both at the national and local level,
2. to create a reasonable degree of stability in the supply food network, and
3. to ensure the ability of households to physically and economically access the food that is required.

Contributions received on Malawi

14. Joost Vervoort, University of Oxford, UK

These scenarios highlight the need for strategic thinking on economic development in a broad sense. Each of the three more problematic scenarios emphasize this need, each in a different fashion, highlighting problems around growing inequality and outside investment that perhaps will only benefit a few, or problems around economic activities that keep the country back. The Wotsalira scenario offers the most challenging future because there is no leverage point for action

unlike in the other two "negative" scenarios. Where do you begin? Perhaps civil society (if organizations can be found that are not crippled by corruption) offers a way toward improvement, together with international support?

15. Susan Nyirenda, Physical Planning Department, Malawi [first contribution]

- (1) The summary of the four scenarios is really an eye opener, the drivers are to encourage using the readily available local resources to the production of our foods i.e. farm inputs like manure, local technology with little supervision in food production, sustainable natural resources conservation by involving the communities themselves and utilising the idle young adults who cannot get any employment opportunities due to their low literacy level.

16. Susan Nyirenda, Physical Planning Department, Malawi [second contribution]

What I meant by utilising the idle young adults to participate in development is that we can borrow the concept of the Young Pioneers Bases during the one party rule, the system had its positive contributions. There are some of these Bases which have been abandoned and some have been turned into Refugee Camps, if they could be revamped into Effective Agricultural and Technical Training Centres, we won't be running short of foods in Hospitals, Government Boarding Institutions as it were in those days though there is an increase in annual intakes. We used to have good diets really especially in high academic institutions. I feel these were contributing a lot towards food security and surplus yields were stored in government shelters to be distributed to ADMARC depots for people to buy at a fair and affordable price, some surplus yields could be exported to other countries in need hence strengthening our currency. The young adults had double benefits i.e. acquisition of skills and self employment when they go back to their home villages hence contributing to the socio-economic development of the nation as whole.

All in all, for this to be well implemented and be effective, there is need for a strong political will and proper decision-making by the experts in the different economic circles. Sustainable natural resources conservation, where we are also involved much as physical planners, how we use and locate our land and the resources available is greatly desired. We can have good plans on the paper but usually implement something different out of the planned development strategy. It is really sad that things go this way.

17. Robin Bourgeois, Global Forum on Agricultural Research, Italy

Maybe it would be also useful to dig deeper into the "raison d'être" of the future states chosen for these two major uncertainties (politics and economy). What makes politics be for the selfish few and be for the greater good? What are the drivers of a stagnant economy and the drivers of a growing diversified economy? Are these two uncertainties really independent? I don't know Malawi, but it seems very likely that there are some connections between these uncertainties. In particular a growing and diversified economy would not be very compatible with politics for selfish few as the selfish few would ensure capturing most of the growth benefits by making growth not diversified and concentrating their power on it. The politics for the selfish few would go much more

consistently with a different state of growth which would be a growing non diversified economy. But this scenario is not offered here, while probably as plausible and challenging as the others. Similarly considering that investing for the "greater good" can be associated with a stagnant mono dimension economy raises consistency and ideology questions. In terms of consistency, to what extent could a stagnant and mono dimensional economy be logically associated with progressive policies? Then, on ideology, it goes against the global discourse on governance and growth and all the work done in the recent past to show that good governance is a key driver of growth.

Some food for thought, thus...

18. Solange Heise, FAO, Niger

As far as I am concerned the scenario which suits to Malawi is number 4. I worked for 2 years (2011-2013) in this beautiful country and I was not in Lilongwe but in the country side where I could see the reality of the vulnerable population. These last years, several decisions were taken and policies were elaborated to improve the condition of the population. However the lack of capacity to take these policies into actions is a burden in the development of Malawi. In fact, we all know that Malawi is affected by HIV AIDS which reduced its capacity. The population is now very young and needs to builds itself again to gain experience. Therefore, the main driver to develop Malawi will be the young generation. This part of the population needs to be educated and given a chance to play a key role in the development of the country. Capacity building will be very important! Obstacles will be of course corruption , instability due to political argument and accountability.

To reach the Nkaka Ndi Uchi scenario a lot of work and advocacy need to be done at the highest level as well as at the district levels. Better education and health care for the rural population as well as good roads need to part of the plan. Lessons learnt and successes from projects in some area in the country should be disseminated widely to other district. Although the population is very poor, I've seen that with a little bit of awareness on the issues and a good will changes could be done for few moments. It is still difficult for the population to be self reliant by they could be! Multisectoral approaches are very important to fight poverty and the different partners have understood that and working in that sense. Using local resources, building capacity and having a good M&E system can help too. Malawi has the capacity to eradicate hunger , food insecurity and malnutrition and the population has to believe in it , to work and fight for it instead of waiting for the politicians who are just trying to save their pockets. The donors will continue supporting the development of this country if it becomes more accountable. In that case the policies won't be drafts anymore! and I think progress have been made for that these last years.

Key words : Accountability, Capacity building, Local resources, Youth, Gender, Self reliance, Policies becoming actions...

19. Chris Manyamba, Institute for Food, Nutrition and Well Being, University of Pretoria

I am a concerned Malawian. Despite the country being donor infested; where civil servants receive meagre salaries, and a majority of rural people food insecure for almost half of the year, I am not sure which scenario is most applicable, maybe 3 with reservations. First of all, realistically, Malawi

is one of the poorest nations of the world, with 47% of children stunted (food insecure) (MDHS, 2010). With 52% of the population, and high maternal mortality rate, and fertility rate (highest in SADC), scenario 1 is very unrealistic. Which brings me to the point of consulting the grassroots, smallholder farmers and the rural poor in such discussions. I am not sure who the respondents who came up with the 4 scenarios were; but there is a tendency of not consulting the rural poor, who are the culprits of hunger and poverty; look at the 2011 Nutrition strategy-it does not address the needs of the rural poor, women (who constitute over 70% of food production) and the youth (who are shunning agriculture and migrate to South Africa or cities, where they become vulnerable to food insecurity. The Comprehensive Africa Agriculture Development Programme and the ASWAP; they were constructed by architects who did not include the rural poor, smallholders; and how then do the policies transform the population economically through the 6% GDP growth (CAADP)? To sum my point; Malawi does not need an online consultation like this in order to draw strategies or make a case; it needs a complete overhaul; (politicians will continue to be greedy); donors will continue to prescribe programmes the way they want, smallholder farmers, women and youth will continue to be silent (not by choice) in policy framing and implementation, The result is "success stories of fertilizer subsidies in terms of yields, while the population continues to be food insecure at household level; and increasing GDP when the food basket is shrinking!

20. Frank Musa, Lilongwe University of Agriculture and Natural Resources, Malawi

The two scenarios (Mbombo and Wokankha) can be the most possible routes for Malawi to move from Wotsalira to Mkaka ndi Uchi. The most likely path that can be anticipated is through Wokankha scenario as mbombo scenario cannot entirely work in Malawi courtesy of donor influence and memories of brutal one party regime in the past. However we can anticipate some elements of Mbombo scenario evidenced by cases of corruption and mismanagement of public funds by politicians, their business cohorts and high ranked government officials.

Evolution of Agricultural and Natural resources policies has proved that previous and current policies primarily focus on short term improvements rather than long term sustainability of agricultural production and food security. Recognition of the need for long term policies with strategic partnership as well as strong political will to transform the nation from Wotsalira scenario to Mkaka ndi Uchi is need most at the moment. These are the major determinants of how and when the nation can get to Mkaka ndi Uchi scenario.

Frank Musa Lilongwe University of Natural Resources and Agriculture (Bunda College) – Malawi

21. Emma Gausi, World Agroforestry Center, Malawi

The four scenarios capture much of the issues relating to underdevelopment in the country. I would like to see Malawi attain the Mkaka ndi Uchi scenario but I feel like the mbombo scenario seems the one more probable to happen in the next 50 years if the country does not change and learn from past experiences. Malawi is one of the poorest countries in the world. There already exist well developed policies and strategies in the country that clearly states most of the problems that have been explained in the scenarios. I think it is important to also look at why most of these policies are

not resulting into the necessary transformations. There is a mix of factors that are affecting the country. These include high corruption levels, little emphasis on developmental investments such as infrastructure, manufacturing and many more. In addition the country also faces a burden arising from effects from HIV/AIDs that cannot be ignored. All these factors need to be tackled if Malawi wants to move towards the Mkaka ndi Uchi scenario.

On drivers of development, Malawi needs to take advantage of the vast youth base that is being underutilized. Also there is need to change emphasis on subsistence agriculture to more commercial agriculture. And Malawi needs to diversify its export base. Tobacco used to be a lucrative crop some years back. There are many other crops let alone other sectors that Malawi can diversify to. There are too many efforts on development by different partners each following their own agendas and rules. Harmonization of development efforts would help the country move towards development.

On key first steps, everyone need to get involved but we need political buy in. We need to fight corruption. Building strong and effective institutions would help the country fight corruption. The country need to invest in education. A graduate a family would be a great idea.

22. Manuel Moya Benavent, International Pediatric Association, Spain

Dear Sir or Dear Madam,

Here are my opinions and responses to the four questions. Really is to the 3rd question where pediatric nutrition could be more related and has a scientific base. If any additional information may be of interest, please do not hesitate contacting me.

1st Q.

R: The main drivers are heavily influenced by politicians' will. Education and decreasing corrupts chain's impunity can be achieved by applying the constitution directives at all administrative levels. The obstacles are the chronicity of the situation, the current level of welfare, subsidies, lack of health efficacy over the whole country and food insecurity.

2nd Q.

R: The scenarios for Malawi represent quite accurately the present situation. The actions should be timed and prioritized in order to gain efficacy. Perhaps the judicial branch should be the first to clean up (2nd and 4th scenarios).

3rd Q.

R: On behalf of the International Pediatric Association and as Chair of its Technical Advisory Group on Nutrition, I consider food security paramount and by extension the influence exerted over it by climate change. In order to improve the nutritional status of children in Malawi, the crops of sorghum grain should be preserved or even promoted. The reasonable content of protein (not in lysine) of these crops and their resilience to climate threats would justify this action. Another point that should be taken into account is to maintain or even increase the goat herds. By mixing the sorghum flour and the goat's milk (~3 L/day/animal) the DRIs requirements for lysine will be met.

If nutrition improves so do infectious diseases issues. More technical data can be provided if necessary.

Furthermore IPA has contacts with the Malawi Pediatric Association and also with the Mzuzu University (HIRS center) so a plan for health providers education, as it is currently in place in some other countries of Sub-Saharan Africa, could be considered

4th Q

R: First step: if agriculture will continue to be the main basis for economy, transparency in its management and pertinent directions should be a priority, followed by transparency in politics and Education quality and development. Once these steps are ongoing the adaptation to climate change and health improvement should become easier

Manuel MoyaE Professor and Head
Chair of Technical Adviser Group on Nutrition. International Pediatric Association(IPA)
Chief Editor of IPA Newsletter
International Pediatric Association Foundation, Board of Directors
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23. George Phiri, FAO, Malawi

Esteemed Colleagues,

My personal view is that so far since independence, the largely agrarian economy of Malawi has oscillated in circles within the "Wotsalira" scenario, and to quote Emma Gausi's posting, will likely remain so over the next 50 years if past and present lessons do not inform the future.

It amazes me when I peep into the mixed bag of instruments the country has (legislation, policies, strategies, institutions, seamless human and natural resources) that should transform the country towards the "Mkaka ndi Uchi" scenario. For strange reasons, we have nearly always gravitated towards the "Mbombo" as only the lives of the people who govern improve and not the governed. All the three past presidents have left office via democratic political processes or other causes filthy rich while the governed are left poorer. The present leadership does not even have the courage to declare its assets giving space to further dubious amassing of wealth spiced by cashgate, jetgate, mortuarygate, cowgate, maize distributiongate (continued distribution of relief maize at the time people are harvest maize from their own gardens) and other scandals.

And the governed - increasingly vulnerable, exacerbated by the ravages of the negative impacts of climate change. In 2012/2013, the country's flagship programme for the ultra-vulnerable, the corruption-riddled Farm Input Subsidy Programme (FISP) targeted 1.6 million beneficiaries. A

vulnerability assessment towards the end of 2013 assessed 2 million Malawians as starving (FISP beneficiaries included).

A new and revolutionary approach is required to replace the present business-as-usual approach. First and foremost, we must replace the present pseudo-political will, review and reform institutions policies, laws and development strategies, set priorities upright (not upside-down as it is today), promote nation-wide sustainable land and water management, replace biomass energy with efficient and renewable sources, and transform peasant and subsistent agriculture to commercial and value-chain based agriculture, develop efficient markets. This will only be the first step from "Wotsalira" to "Mkaka ndi Uchi" highway

24. Sophie Mahonya, Malawi

In my opinion, there are a lot of obstacles to development in Malawi such as population growth, high poverty levels, reliance on rain fed agriculture/production which is currently facing challenges due to climate variability such as unpredictable onset of rains (erratic rainfall) floods, and prolonged dry spells. Furthermore, population growth will pose a challenge because economic growth, food security achievements will be compromised and as a country we will fail to meet the requirements due to pressure on limited resource base. To deal with poverty governance issues should be addressed because without good governance economic growth can not be achieved. Additionally, there are quite a number of challenges in the agriculture sector which is the pillar for Malawi's economy, the smallholder dominated agriculture is experiencing inadequate agricultural extension services, though some of the farmers benefit from the subsidy programme, there is more to be done to make it more efficient.

As a country we should move from handouts to economic empowerment of the vulnerable groups, women, youths so that they have established ways of getting out of poverty. Government policies should be tailor made to address these issues. With the current scenario we will not move forward as a country. However a paradigm shift would help to change things, those on the driving seat should move away from the business as usual scenario to change to Wotsalira to Wokankha and finally Mkakandiuchi.

The Government should seriously consider doing more to promote the management of the environment and natural resources which are forming part of the already fragile ecosystems so that the services offered by these systems are sustainable for maintenance of human well - being.

25. Leslie Lipper, FAO, Italy

General comments

Reading these inputs in addition to the outputs from the first scenario workshop is really quite illuminating and helpful in getting the big picture of the problems and challenges facing each of the three countries.

One of our biggest concerns in the EPIC team is developing climate smart agricultural investment plans that can generate effective and needed change in each country. To do that we are focussing on identifying key “delivery mechanisms” that need to be supported- and this dialogue is very relevant to identifying what those might look like. For example, I’ve been struck by comments for all three countries about the importance of educating and engaging young people as a key means of strengthening current and future capacity to effect change. Likewise, the importance of addressing and reversing natural resource degradation and depletion has come up in the dialogue for all three countries – although here it is less clear what actions are likely to be feasible and effective. We also see that in all three countries there is considerable concern about increasing the effectiveness of institutions to support change – but there are considerable differences in what might be the best solution here.

Comments on Malawi

For Malawi, a very strong emphasis on youth education, addressing health issues and lack of capacity to implement good policies emerges from the comments. There was also a call for advocacy and education around climate change issues at both national and local levels. The idea of setting up local level training centres built upon the Young Pioneers program I thought very interesting and I would like to explore that idea more. In thinking through how best to support implementation capacity in Malawi it is not clear to me how much emphasis should be given to civil society (e.g. using NGOs as the main implementing agents) versus building up government capacity to operate at local levels (e.g. providing support for local level government extension/training/input supply). This is a question I think we need to explore further.

A final issue arising from the responses to the dialogue for building the country CSA investment proposals is the importance of considering that there can be alternative futures in each country and that will have a big impact on the effectiveness of the CSA work. The question is then to structure the CSA investments so it can be effective under very different futures in the country – but that of course is very tricky! One thing I think likely to be effective under any plausible future is strong emphasis on youth education and training and so this should be given some emphasis in the proposals. In Malawi it is also clear that health and nutrition issues are likely to be important under any future scenario. Improving market governance and positive participation of the private sector seems a key issue in all countries as well, but of course this is more difficult to address through the channel of a CSA investment proposal. However, while I think we have to be realistic about the role the CSA work and investment proposals can actually play in having a positive impact on larger issues of national development, we do need to think very carefully about the leverage the project and investments could have in promoting desirable future scenarios and be creative in building implementation structures that actually contribute to larger public goods such as effective market governance. Having more specific feedback on how to do that in Malawi would be most useful as we move ahead in the CSA project.

26. Doreen Kumwenda, Ministry of transport and public works, Malawi

Despite having good national development visions, goals and strategies on paper, Malawi will remain under developed if there is no behavior change at all level: decision makers, politicians, programme planners and implementers, and grass root. It is high time, the country needs to be result oriented, make decisions based on sound economic and/or technical analyses rather than political directives/desires. It amazes me to find very good development plans failing to materialize

due to change of political parties ruling the country. It also amazes me to see some projects being implemented based on political desires (gaining political mileage) rather than economic analyses.

27. Romina Cavatassi, FAO, Italy

It has been very interesting to read all the inputs and comments received so far, in addition to the outputs of the first scenario building workshop.

Common issues raised are importance of education and more effective and transparent institutional and implementation mechanisms. Depletion of natural resources as well as the impact of climate change on agriculture, the main sector of the country's economy, have also been raised by many contributors.

Many are also concerned about population growth as well as of the impact of HIV/AIDS and the consequent need to support the youth and the many female headed households left behind. Investing in education, including climate smart agriculture related education, would thus need to take these aspects into account and should certainly be included in the investment proposal.

One interesting question I have is more related to issues raised on the importance of market and effective value chain for agriculture. Many contributions have indeed raised that agriculture in Malawi needs to be more market oriented agricultural and to diversify into different crops. On that specific issue Prof. Moya explicitly suggested investing in preserving or promoting sorghum production and goat herds. It would be interesting to hear some more opinions with regard to what could be done, in practice, to have a more effective agricultural system and a diversified system more market oriented but also more resilient to climate change.

I would also be very interested to hear more about what are the first steps needed to get a change process in motion? What are the practical steps suggested to have more effective system and solutions? Investing in education, including of extension agents is a clear requirement, but what are the most effective ways of involving rural poor, women and young people as pointed out by most of the contributors?

28. Santosh Kumar Mishra, Population Education Resource Centre (PERC), India

What do you think are the main drivers of and obstacles to development for Malawi in the next 30 years?

1. **Drivers of development: There are three priority areas.** *Firstly*, there need to address the poverty and inequality facing large parts of the population. *Secondly*, the **Malawi** government needs to support economic growth and wealth creation to turn the economy around and sustainably help people out of poverty. *Thirdly*, what is needed is good governance that will actively promote an open society.
2. **Obstacles to development:** The poor are vulnerable to a host of shocks and hazards. These include droughts that come in cycles of three to five years, yearly floods and storms, and man-made hazards such as economic shocks, and HIV and AIDS. Malawi's dependence on

natural resources and rain-fed agriculture makes the country particularly vulnerable to the effects of climate change.

Keeping in mind that each scenario represents an extreme future, how plausible do you think the scenarios for Malawi are? What would you like to add/change in each scenario to make it more plausible from your perspective?

- **Malawi:** Main factors contributing to food insecurity include low crop production as a result of earlier dry spells, floods, and input shortages. Secondary factors include low food stocks and unstable maize supply.

What solutions would support the drivers of the best scenario and help overcome obstacles encountered on the way? How about overcoming the challenges of the worst scenarios? (common to the 3 countries)

Feeding the world in an equitable and sustainable manner must involve food production and the food system assuming a much higher priority in political agendas across the world. Shaping the debate around issues like jobs, economic development and public health rather than about “joint sacrifice” would be most effective. Government departments around the world should consider moving responsibility for water, food and energy into one department to improve effectiveness.

What are the key first steps needed to get a change process in motion, and who needs to be involved?(common to the 3 countries)

There is a growing sense of urgency in establishing an effective and democratic agricultural system, which has in turn slowly given way to the emergence of various social movements and initiatives (such as the IPC) that highlight the importance of creating self-reliant local food systems. Food sovereignty is widely recognized as the right of all individuals to define their own agricultural policies, policies that are socially and economically appropriate in ensuring people’s physical and emotional well-being. This includes the right to food and the right to produce the food that’s necessary to sustain a society. For food security to be existent, it is paramount to ensure physical and economic access to a variety of food products that meet the dietary needs for a healthy living. There is need:

1. to ensure adequate food supplies both at the national and local level,
2. to create a reasonable degree of stability in the supply food network, and
3. to ensure the ability of households to physically and economically access the food that is required.

Contributions received on Zambia

29. Joost Vervoort, University of Oxford, UK

All scenarios offer different challenges and opportunities - but perhaps the Nalimali scenario offers the toughest challenge. Institutions are working reasonably well and are adaptive, but nevertheless they are not able to overcome the problems of a struggling economy, which means their adaptive

capacity has been overwhelmed. How could this situation be remedied? Could fruitful collaborations between the government and socially responsible private sector help overcome the problems?

30. Robin Bourgeois, Global Forum on Agricultural Research, Italy

I think the comments I made about Malawi's scenario do also apply here (related to the compatibility of the future states of the two identified uncertainties and their interconnection).

31. Noah Zimba, Zambia Climate Change Network, Zambia

The main factors that have impacted negatively on development in Zambia can be associated with multiple facets ranging from policy failure to poor allocation of resources to areas that have impacted on delivery of the well intended areas of actions. Important to reflect on include among others:

- a. Failure in restructuring policies that impeded and destroyed the production and value addition infrastructure across the country. The policy decision to privatize most enterprise compounded rapid scale down in delivering government services and exposed industrial base as well as institutional memory to rapid deterioration.
- b. The transition from socialist policies to capitalist approach lacked safeguards and systematic progression that led loss of institutional and technological knowledge including skills necessary to provide productive and strategic input in key institutions.
- c. lack of financial discipline exposed key institutions necessary for growth to reduced liquidity compounded by declining motivation to provide important services such as extension support and oversight.

32. Suman Jain, University of Zambia

1. Main drivers of development in Zambia in the next 30 years

- Stable political situation
- national policies formulation and implementation to enhance agricultural productivity
- transparency in land and natural resources utilization and management
- quality education and vocation training to national needs

- increasing participation of Zambians in decision making processes in key industries such as minerals
- government policies and availability of funds to support SMEs

Obstacles

- growing rate of urbanization
- very high student teacher ratio causing at least 30% drop out rate at every level of education leading to unemployment among youths
- lack of finance to boost agriculture, promote education and research
- devastating impacts of climate change on agriculture, hydro power generation, living beings

2. Scenarios for Zambia

All four scenarios are plausible although following changes should be considered in descriptions.

There has been an awareness in the country to fight corruption so to say irresponsible institutions does not look appropriate. We can say weak institutions which lack resources to implement policies and are not able to provide basic services to rising population.

4. Key steps to get a change and who needs to be involved

Promote agriculture and local industry for production of consumers goods.

Educate the society to participate in development.

33. Andrea Cattaneo, FAO, Italy

I would like to follow-up on Dr. Bourgeois' invitation to go deeper into the "raison d'être" of the different scenarios (in his comments on Malawi). Despite Zambia's 6-7% annual economic growth in the last decade, such growth has not translated into significant poverty reduction. The World Bank reports that 60% percent of the population lives below the poverty line and 42% are considered to be in extreme poverty. The urban picture is far better than the rural: in the Copperbelt and Lusaka provinces, for example, poverty incidence is fairly low (22% and 34% respectively), whereas in the rest of the country, which is dominated by agriculture, poverty rates are greater than 70%. Almost 90% of Zambians who live below the extreme poverty line are concentrated in rural areas. Despite vast potential and stated commitments to diversification, the mining sector continues to dominate the economy.

What will the situation be in 30 years? From an outsider's perspective, for the positive "**Kudyela Scenario**" to come to fruition, Zambia's growth will need to translate into a corresponding increase in job creation and progress on poverty reduction. Zambia's natural resources will need to be fully harnessed to foster structural transformation and inclusive job creation. Currently the country is dependent on copper mining, which accounts for about 80% of foreign exchange earnings and only

6% of total revenues (African Dev. Bak, 2013). Thus, Zambia's long-term economic prospects hinge on the prudent utilization and deployment of copper revenues as well as harnessing the potential for agricultural development. The challenges that are likely to be encountered, as often occurs in extractive-based economies is that rents from these activities are captured by a country's elites instead of being put to use for the broader development agenda of the country. This would indicate that there is a risk that the "**Mwadyamweka Scenario**" may occur.

34. Royd Vinya, Copperbelt University, Zambia

The drivers and obstacles to development for Zambia in the next 30 years are the Zambian people themselves. Unless the mindset of an average Zambian is changed to begin to believe that only Zambians can clearly define their economic direction, it would be impossible to land in "KUDYELA" scenario. Right now I can safely say that we are under the "MWADYAMWEKA DAD". It is from this scenario that I believe its only Zambian's who can best sort out this scenario through a democratic process. Zambia has over the years seen some of the worst economic decisions being pronounced and implemented by the very people whom we elect into power to try and sort out the economic injustices. Without any doubt these decisions have negatively contributed to setting of wrong priorities not only in the agricultural sector but throughout the spine of the nation. The net result of all the poor decisions coupled with lack of long-term planning has been declining rural development. I want to agree with the other contributors that the general management of the Zambian economy has been that of a black box rather than transparency.

I want to believe that things will only get better when the generation that grew under UNIP has completely disappeared from the face of Zambia. The UNIP generation spends more time on how to fix each other rather than fixing the economy so that we can have a Zambia where no one goes to bed without a meal or indeed waking up without any assurances of breakfast. The MMD generation is also another problem as the philosophy of "MWADYAMWEKA" is deeply enshrined in nearly all the citizens.

However, not all looks like "YAZANDA", I can foresee a generation within the next 30 years that is going to put things right. Day by day I see the Zambian people becoming more aware of their role in national development than it were 30 years ago.

35. Ephraim Mwepya Shitima, Ministry of Lands, Natural Resources and Environmental Protection, Zambia

Having participated in this scenario setting session for Zambia last year, it is interesting to take a second look at them and probably with hindsight, re-evaluate my position on them.

In terms of the main drivers of development of Zambia in the next 30 years, a number of factors are important but two immediately come to mind. Infrastructure development, especially in terms of transport infrastructure which opens up the country and improves efficient movement of goods and services in a prerequisite. Second to infrastructure development is the old song of diversification of the economy from its historical over-reliance on copper to a well functioning agricultural sector supported by a robust Agro-processing industry which adds value to agricultural products

Because of climatic uncertainties, cross cutting issue of climate proofing all these programmes or strategies will be crucial to ensure they remain climate-resilient.

Revisiting the scenarios for the future, I feel reality is somewhere between Mwadya Mweka and Kudyela but very difficult to ascertain as it depends on a lot of factors.

36. James S Phiri, Institute for Eco-Strategies and Toxicology (IESTO), Zambia

1) What do you think are the main drivers and obstacles to development for Zambia in the next 30 years

Political and governance issues that are compounding corruption and increasing poverty levels are the key drivers and obstacles to development for Zambia in the next 30years.

2) Keeping in mind that each scenario represents an extreme future, how plausible do you think scenarios for Zambia are?

Yazanda Scenario-A country characterized by low economic growth and institutions that are weak and unresponsive. Yazanda is slang in Bemba language meaning things are bad.

This looks like a likely description of Zambia not far in the distant future if the current indicators cited in the King's address are not stopped or reversed. It is a scenario that follows the Mwadyamweka Scenario. Zambia could easily be sliding towards this scenario but it is yet there.

Mwadyamweka Scenario-A country with high and steady economic growth but institutions that are weak and unresponsive. Mwadyamweka is slang word in Nyanja language that alludes to selfishness.

Possible best fit scenario for present day Zambia and if trajectory continues, Yazanda scenario is not far.

This scenario could be the closest to what Zambia is today and may unfortunately be so in the very nearest future and degenerating into Yazanda Scenario. The major constants that could reverse the trend in a long-term will be good political and governance improvements supported by an informed citizenry that would hold institutions accountable and eventually make them responsive and strong. This entails good understanding of power bases and motives of opinion and perception makers who prey on innocent "all believing non-critical minds". To rid of this scenario, corruption will have to be fought by example by leadership of different national and local structures across.

Kudyela Scenario-A country characterized by high and steady economic growth and institutions that are efficient and highly adaptable. Kudyela is a Nyanja word that means having a good time. - Most idealistic but just a dream certainly not realisable in the next 50years or so.

This is an extreme ideal situation. Very unlikely in another 30-50years because the heavily corrupt political and governance constant is unlikely to change based on the current generation and practices for ascending to power. Much as is what is ideal, it is realistically but just a dream for any country.

Nalimai Scenario -A country with low economic growth but with institutions that are efficient and highly adaptable. Nalimai is a word in Lozi language meaning the unfortunate one.

This scenario almost sounds contradictory because with all the good functional systems, an economy should generally respond positively. This is neither the present situation for Zambia nor the future because a weak economy means that economic and social sector policies and programs cannot be self supported. In this case the economic performance will have to fit the donors who in some cases prescribe “one size fits all” fixes regardless of country situations. Generally, the good story under this scenario is negated by the state of an economy that is on its knees. Were the economy to be strong, Zambia should be under this scenario. This scenario is not plausible for Zambia.

b) What would you like to add or change in each scenario to make it more plausible from your perspective?

Yazanda Scenario

Possible addition to make this scenario plausible could be the inclusion of the following to the King’s point speech/address;

“-More crucially we have lost the support of our cooperating countries because they have believed unsubstantiated wild accusations by the social media that our leadership is corrupt

-as a result of donors withholding their support, we are unable to support the socio-sectors resulting in high mortalities from communicable and non-communicable diseases witnessed only under the bitter Structural Adjustment Program (SAP) era.

-Finally, the economy is on its knees because the opposition political parties, NGOs including churches have connived with industry to make this government unpopular”

These additions would make this scenario almost true about Zambia.

Mwadyamweka Scenario

This is a case of a country that has high levels of corruption at all levels. It is highest levels of selfishness. Including corruption and selfishness to this scenario, one possibly could describe present day Zambia. The following additions would also fit the lamentations by this farmer and make it even more plausible;

At paragraph 1.....I used recycled seed due to late distribution of inputs. When the recycled seed germinated, I woke up one morning to find some little devils had eaten all my maize. There has been insufficient information from Meteorological and Extension offices on weather forecast and pest out breaks and the media have done little to disseminate weather information.

Paragraph 3”.....This year’s budget allocation to agriculture and input subsidies has further increased but these may not reach the majority of farmers like me. I am told the inputs will first be distributed by the Minister to areas that support the leadership of the day but are also traditionally not agriculture to ensure national food security.

Paragraph 5 “.....Luckily my daughter just got engaged to a copper trader (jerabo) who sells to the Chinese. On my part, I am going to queue up and shout the loudest for the Minister who may dish-out benevolence although in reality this is my tax payment money but is said to be donation by a people centred government for selfish interests of the political leaders. This I hope will help us to survive the harsh realities of life.”

Kudyela Scenario

Most un-probable idealistic dream country for any nation. I do not know of any such a country except heaven on earth beliefs.

Nalimai Scenario

Changing the positives to negatives makes this scenario plausible as summarised; “A country with low economic growth and with institutions that are inefficient and highly unadaptable.” This scenario would eventually be similar or same as Yazanda Scenario.

3 a) What solutions would support the drivers of the best scenario and help overcome obstacles encountered on the way?)

Best Scenario drivers include everything every nation aspires and key ingredients include strong economic growth in a balanced ecosystem, good governance anchored on institutions that are accountable to citizens exhibiting observance of the rule of law and a motivated and highly educated and skilled citizenry.

b) How about overcoming challenges of the worst scenario?

Challenges of the worst case scenario could take many generations to overcome because the challenges are compounded by complex related vices or factors that require complete overhaul. It requires massive investments in awareness and education because an educated society is likely to find solutions to the challenges they face. It also calls for moral transformation to ensure leadership is morally upright. Leadership should be seen to lead by example and make decisions and act in such a way as to strengthen institutions and not take advantage of weak institutions to corruptly enrich themselves. Strategic investment in economic sectors such as agriculture and manufacturing as well as in the education sector could in the longterm reverse this scenario. The “king” should not only ask citizens to sacrifice, but he must be the first one to be seen to be “tightening and not loosening and increasing notches to his belt”

4) What are the key steps needed to get a change process in motion and who needs to be involved?

The solutions to overcoming worst case scenario as given in 3(b) above are applicable here. It requires setting up institutions that are accountable to the citizens and not self serving the leadership. Change process requires the mobilization and therefore involvement of citizens to ensure change is wholly owned as the case was when Zambia ditched the One Party system of governance in favour of multiparty democracy. Any attempt or perceived attempt to change this agreed form of governance is rejected by citizens because they were involved in the change process.

37. Leslie Lipper, FAO, Italy

General comments

Reading these inputs in addition to the outputs from the first scenario workshop is really quite illuminating and helpful in getting the big picture of the problems and challenges facing each of the three countries.

One of our biggest concerns in the EPIC team is developing climate smart agricultural investment plans that can generate effective and needed change in each country. To do that we are focusing on identifying key “delivery mechanisms” that need to be supported- and this dialogue is very relevant to identifying what those might look like. For example, I’ve been struck by comments for all three countries about the importance of educating and engaging young people as a key means of strengthening current and future capacity to effect change. Likewise, the importance of addressing and reversing natural resource degradation and depletion has come up in the dialogue for all three countries – although here it is less clear what actions are likely to be feasible and effective. We also see that in all three countries there is considerable concern about increasing the effectiveness of institutions to support change – but there are considerable differences in what might be the best solution here.

Comments on Zambia

In many ways the Zambia dialogue reflects the same issues as Malawi (good governance is key to determining the future but difficult to achieve) but the situation in the country is quite different because Zambia is a richer country that has had higher levels of economic growth. The lack of allocation of public resources to smallholder agriculture and particularly needed infrastructure seems very important, as is the issue of weak/poor governance of the private sector. It seems that better management and governance of the mining sector could actually be important to achieving effective CSA implementation in the country, but it is difficult to envision how this might be reflected in a Zambian CSA investment proposal. Is there any possible link between better management of the mining sector and CSA development that could be built into an investment proposal? What would that look like? As with Malawi, in Zambia the question of whether to focus on government vs. civil society as the main implementer comes up – which is more likely to be an effective way of supporting CSA development?

A final issue arising from the responses to the dialogue for building the country CSA investment proposals is the importance of considering that there can be alternative futures in each country and that will have a big impact on the effectiveness of the CSA work. The question is then to structure the CSA investments so it can be effective under very different futures in the country – but that of course is very tricky! One thing I think likely to be effective under any plausible future is strong emphasis on youth education and training and so this should be given some emphasis in the proposals. Improving market governance and positive participation of the private sector seems a key issue in all countries as well, but of course this is more difficult to address through the channel of a CSA investment proposal. To what extent could and should a CSA investment plan facilitate better management of the mining sector in Zambia?

I think we have to be realistic about the role the CSA work and investment proposals can actually play in having a positive impact on larger issues of national development, we do need to think very carefully about the leverage the project and investments could have in promoting desirable future scenarios and be creative in building implementation structures that actually contribute to larger

public goods such as effective market governance. More feedback on how this could be done in the specific context of Zambia would be very useful as we move forward in the CSA project work.

38. Santosh Kumar Mishra, Population Education Resource Centre (PERC), India

What do you think are the main drivers of and obstacles to development for Zambia in the next 30 years?

- **Drivers of development:** The quality of institutions, and of their governance, is a key influenceable factor affecting the achievement of poverty goals. These institutions may be public or private, formal or informal, rural or urban. From a poverty-reduction perspective, the extent to which they meet the priorities of poor people, women and other marginalized groups, will often be important. The role of these institutions, and the impact of any shortcomings, in poverty reduction, may be understood through the effects they have on development strategies. There are different ways in which these strategies may be formulated, but one means of doing so that is applicable in many countries is to categorize them as involving some combination of: (a) *sustainable economic growth*; (b) *empowerment*; (c) *access to markets, services and assets*; and (d) *security*.
1. **Obstacles to development:** A combination of policy distortions and structural characteristics, such as Zambia's land-locked situation and vulnerability to droughts and flooding, has hindered the further development and diversification of the sector. The sector is characterized by a dual structure, where a small number of large commercial farms, concentrated along the railway line, co-exist with scattered subsistence smallholders and few small commercial farmers who face severe difficulties accessing input and output markets.

Keeping in mind that each scenario represents an extreme future, how plausible do you think the scenarios for Zambia are? What would you like to add/change in each scenario to make it more plausible from your perspective?

Zambia: High food prices and high unemployment rates combine to place considerable stresses on the most vulnerable sectors of the population.

What solutions would support the drivers of the best scenario and help overcome obstacles encountered on the way? How about overcoming the challenges of the worst scenarios? (common to all 3 countries)

Feeding the world in an equitable and sustainable manner must involve food production and the food system assuming a much higher priority in political agendas across the world. Shaping the debate around issues like jobs, economic development and public health rather than about "joint sacrifice" would be most effective. Government departments around the world should consider moving responsibility for water, food and energy into one department to improve effectiveness.

What are the key first steps needed to get a change process in motion, and who needs to be involved? (common to all 3 countries)

There is a growing sense of urgency in establishing an effective and democratic agricultural system, which has in turn slowly given way to the emergence of various social movements and initiatives (such as the IPC) that highlight the importance of creating self-reliant local food systems. Food sovereignty is widely recognized as the right of all individuals to define their own agricultural policies, policies that are socially and economically appropriate in ensuring people's physical and emotional well-being. This includes the right to food and the right to produce the food that's necessary to sustain a society. For food security to be existent, it is paramount to ensure physical and economic access to a variety of food products that meet the dietary needs for a healthy living. There is need:

1. to ensure adequate food supplies both at the national and local level,
2. to create a reasonable degree of stability in the supply food network, and
3. to ensure the ability of households to physically and economically access the food that is required.

39. Concluding remarks by EPIC team

Dear participants,

Our e-consultation on The future of food security and climate change in Viet Nam, Malawi and Zambia: scenarios, outlooks and challenges in the next 30 years has now concluded and we would like to thank you all for sharing your views and experiences on this topic.

Each comment addressed the issue of climate change and food security under a different angle and enriched the ongoing work of the EPIC programme with a number of insights of high quality.

The outcome of the e-consultation will enrich the discussion between researchers, practitioners and policy makers at the participatory scenario workshops which will take place in the coming weeks in Malawi, Zambia and Vietnam.

Thank you again for taking part of the discussion and we hope you will stay in touch with us by visiting our website, joining newsletter or writing at epic@fao.org.

With best wishes,

The EPIC Team