

# SWITCH-ASIA BRIEFING



Source: International Rice Research Institute

## Sustainable agriculture and food systems in Asia

***“Farming has enormous impacts on the world’s most critical resources. Accordingly, farmers will have to produce while also ensuring the provision of various vital ecosystem services. If they do not, we will not only degrade those resources, but also exhaust the ability to produce enough food. [...] For the first time at a global level, food production faces multiple limiting factors for key resources such as land, water, energy and inputs.”<sup>1</sup>***

**D**uring the 11th Asia-Pacific Roundtable on Sustainable Consumption and Production (APRSCP), held on 19-20 May 2014 in Bangkok, several SWITCH-Asia projects presented their experiences and recommendations during the two thematic sessions on sustainable agriculture and food systems, an upcoming new issue in the 10 Year Framework Plan on SCP. In addition to SWITCH-Asia project presentations, the sessions featured leading experts from sustainable agriculture initiatives across Asia. Furthermore, the SWITCH-Asia Network Facility organised a moderated dialogue session which enabled fruitful exchanges and discussions between SWITCH-Asia projects and other Asian food and agriculture experts. During the sessions a number of issues and recommendations for sustainable food systems were identified which are summarised in this briefing.

<sup>1</sup>) Source: United Nations Department of Economic and Social Affairs, Division for Sustainable Development “Food and Agriculture: the future of sustainability”, March 2012. <http://sustainabledevelopment.un.org/content/documents/1443sd21brief.pdf>

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# Standards, certification and food labeling: cross-cutting issues for food and agriculture SMEs in Asia

The lack of coherence of national standards on the one hand, and the multitude of available certification schemes and food labels on the other hand, are important issues to be addressed. It is necessary for standard setting bodies to adapt national food quality standards, labels and certification practices to regional, national and local food consumption habits to ensure wider acceptance. Furthermore, national food standards can be used to promote traditional, indigenous products and agricultural practices. While companies would need to engage in voluntary disclosure to enhance transparency and traceability, at the same time it might be necessary to exempt certain traditional food products from standardisation.

## SWITCH-ASIA PROJECT CASE STUDY 1



Sustainable pangasius harvesting in Vietnam.  
Source: Vietnam Cleaner Production Centre

### SUSTAINABLE PANGASIOUS FARMING IN VIETNAM

The SWITCH-Asia project “Establishing a Sustainable Pangasius Supply Chain in Vietnam”, led by the Vietnam Cleaner Production Centre, promotes sustainable aquaculture certification. Pangasius (also known as catfish) is a sustainable alternative to other farmed fish such as salmon and Vietnam covers 90 percent of the world market. The project targets pangasius producing and processing SMEs as well as feed producers and small independent production SMEs. The project will promote certification for sustainable SMEs, thereby creating a market pull for sustainable pangasius products. One difficulty relating to certification is that different standards are used in different markets. For instance, the Aquaculture Stewardship Council and Global GAP are commonly used in Europe, but not necessarily in other markets such as the US.

Finally, the capacity of the public agriculture and food surveillance agencies, in particular relating to the food safety aspects of their work, needs to be further developed.

## SWITCH-ASIA PROJECT CASE STUDY 2



Meat processing plant in China.  
Source: GAIA

### ENHANCING ECO-EFFICIENCY IN CHINA'S MEAT SUPPLY CHAINS

GAIA from Spain are together with a number of Chinese partners implementing the project “Sustainable Production and Consumption Models and Certification Tools in Chinese Food Supply Chains” which addresses SMEs from the meat supply chain in Sichuan, Henan and Qinghai provinces. The project promotes tools and methodologies to ensure cleaner production principles are integrated into their production processes. To promote sustainable consumption in the food sector, a certification and eco-labelling approach aims to certify 80 SMEs. The project will raise consumer awareness and market demand through introducing the first Chinese sustainable meat label. One of the main challenges is the lack of a legislative framework for meat certification in China. Therefore the project will make efforts to push for further standardisation in the meat-processing sector. Other recommendations of the project include enhancing subsidies to enable more SMEs to set up environmentally friendly pig and cattle farms.

## Transforming consumption and tackling food waste

Roughly one-third of food produced globally for human consumption is lost or wasted, which amounts to about 1.3 billion tons per year. As introduced during the event, the FAO/UNEP Sustainable Food Systems Programme aims at improving resource use efficiency and reducing the pollution intensity of food systems from production to consumption, while at the same time addressing issues of food and nutrition security. A recent FAO initiative is the Save Food Asia-Pacific Campaign. The hot-spot of food waste is not at household level, but table waste in restaurants and catering industry, an issue that so far has only insufficiently been addressed by policymakers and business. Reducing food waste initiatives ideally go hand-in-hand with waste-to-energy approaches which use food waste for composting or biogas generation.

Increasing rice consumption together with falling yields is a major challenge for the Asia-Pacific region as 80 percent of the population depend on it. The Sustainable Rice Platform (SRP), a global multi-stakeholder platform co-convened by UNEP and the International Rice Research Institute (IRRI), promotes resource efficiency, sustainable production and consumption operations. SRP's goal is to minimise environmental impacts of rice production and consumption, whilst alleviating poverty and enhancing food security for smallholder rice farmers.

By developing practical guidelines, impact indicators, tools, modular standards and incentive mechanisms, SRP aims to boost wide-scale adoption of sustainable best practice throughout rice value chains, including rice consumption patterns and reducing waste.

### SUSTAINABILITY EXAMPLES FROM THAILAND'S FOOD INDUSTRY

*Recent developments towards sustainability in Thailand's cassava industry which accounts for more than 50 percent of the world market share show promising results. Near-zero waste concepts and waste-to-energy approaches in the starch industry have been introduced and are being successfully scaled-up. Human resource development and capacity building of technicians and engineers are important elements to facilitate wider application, showing similarities to many SWITCH-Asia grant projects. In the poultry farming sector, the Global Standard System Center of CPF Thailand has been pursuing sustainability in the value chain for chicken products. It is implemented as an initiative for product stewardship and through LCAs and eco-efficiency analyses, to reduce the environmental footprint of the company's chicken production practices.*

## Conducive food and agriculture policies in Asia

Many Asian countries have designed and implemented quite successfully incentive schemes for renewable energy technology applications in the agricultural sector. Particularly policies providing access to capital for SMEs such

as government-backed loans, grants and direct cash-back schemes have been successful in promoting technologies such as biogas and solar PV. A particular example is the feed-in-tariff for waste to energy generation in Indonesia.

### SWITCH-ASIA PROJECT CASE STUDY 3

#### SCP IN INDONESIA'S SOY BEAN PROCESSING INDUSTRY

*The project "SCOPE", implemented by Mercy Corps and the Association for Advancement of Small Business (PUPUK) as local partner, aims at reducing energy consumption in Indonesian tofu and tempeh processing industries. Tempeh is an important source for protein, amino acids, vitamin B12 and other important nutrients, making it a sustainable and healthy alternative to meat proteins. However, tempeh production and processing often suffers from inefficient processes, lack of hygiene, inadequate waste disposal, lack of know how*

*about clean technologies and poor working conditions. In the project, capacity building is provided to micro and small tofu and tempeh factory owners and managers who lack basic business skills, including financial literacy, planning and management. Furthermore, assistance for entrepreneurs to calculate financial benefits of investing in energy-efficient technologies is provided. A model processing factory equipped with biogas facilities and water filtration technologies has been established in June 2012 in Bogor District.*

Further policy developments should facilitate the systematic treatment of agricultural wastewater through biogas plants. The issue of energy efficiency in food processing SMEs is another issue that deserves more attention. Some of the current policies which hamper progress towards sustainable agriculture and food systems include market distorting subsidies such as those for chemical fertilisers. This issue is cross-cutting and found in most agricultural sectors across Asian countries. With the aim of ensuring national food security, a number of countries have implemented agricultural policies that incentivise quantity over quality. An example is Thailand's rice pledging subsidy scheme which by now has become defunct.

A barrier for many Asian SMEs is to get their high-quality sustainable food products into international markets as there are numerous export market regulations. Facilitating expansion of sustainable food products into

international markets would require more attention by trade policies.

Overall, policies are not proactive enough and do not pay sufficient attention to the concerns of SMEs. In particular, support policies for micro-enterprises, smallholders and farmer co-operatives are missing, as they are often below the radar of agricultural ministries. Policymakers could act more proactively in the promotion of sustainable food by including it into national government procurement schemes. Some of the more general and cross-cutting issues are lack of consensus in many countries on national agricultural policies. Even if policies are in place, policy implementation is often insufficient and integration with national and local regulations is suboptimal. The lack of legal mandate and limited budgets of relevant authorities are additional obstacles.

## Innovative financing opportunities for sustainable agribusiness

Similar to the situation of SMEs in other sectors, most SMEs in the agriculture sector lack green financing opportunities. It is necessary to develop innovative financing opportunities for sustainable agribusiness, i.e. support new cooperative structures and design guaranteed loan programmes intended to improve resource efficiency in agriculture.

Agribusiness associations have an important role to play in this. Their role as aggregators is to reach out to financial institutions and build the capacity of their members to qualify for credits, lower transaction costs, explore new delivery channels to farmers and enable better flow of information for banks to assess opportunities.

## Enhancing consumer information to change food consumption patterns

One of the important issues that needs to be addressed is the confusion many consumers are experiencing when it comes to identifying organic food. The multitude of food product labels, often with conflicting information, has eroded credibility and consumer trust in organic food certification. In many cases, labels do not create an added value to products, as a result there are few incentives for produ-

cers to acquire eco-labelled product certification. To solve this issue, governments would need to promote structured consumer information and education policies on healthy nutrition, ecological food and sustainable diets. Conducting broad education and consumer awareness campaigns on food quality and food security can also influence food consumption patterns and with this agricultural practices.

### SWITCH-ASIA PROJECT CASE STUDY 4

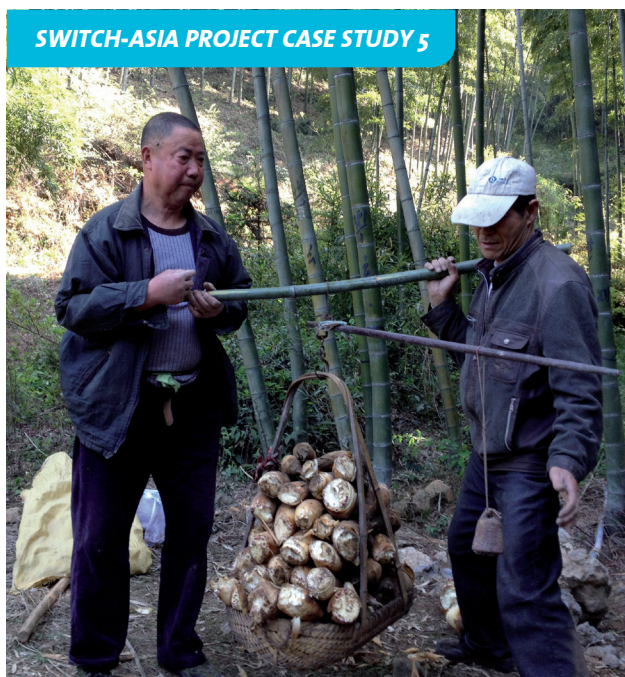
#### GREEN FINANCE FOR AGRIBUSINESS MSMEs IN INDIA

*Increasing consumer awareness has proven to be a successful strategy for creating consumer markets for Fair Trade products in India. The recently completed "Pro-Sustain" project promoted Fair Trade certification that measurably contributed to the improvement of rural livelihoods and provided farmers and artisans with the resources necessary to follow environmentally sustainable production practices. With the launch of the Fair Trade India umbrella brand, Fair Trade has gained much more visibility and sent a unified message across the country. A continuation of the efforts of the Pro-Sustain project is the newly started project aiming to promote "Green Finance for Agri-business MSMEs in India". In contrast to the Pro-Sustain project which had a focus on consumers and markets, the new project will focus on the upstream financial needs of SMEs in the food sector to identify new financing opportunities.*

## Food consumption and sustainable lifestyles

Sustainable food systems, changing diets and healthy nutrition are directly related to current lifestyle models. This social dimension to sustainable food systems also includes the issue of increasing inequality between rich and poor. In many Asian countries, particularly the fast growing urban centers, it has been observed that while the rich have increasing awareness and can afford organic food, the poor increasingly consume unsafe food and unhealthy fast food leading to “civilisation diseases” such as obesity and diabetes. A major influence for these developments

are mass media and advertisement on portraying what a desired lifestyle is and the correlating unhealthy diets. Countermeasures to these developments are consumer information campaigns which promote local cuisine and traditional foods. Educational campaigns with a focus on youth to change mindsets are of particular importance. Special focus and efforts should be taken to engage the youth, the future food consumers, by use of social media such as twitter, facebook, etc.



SWITCH-ASIA PROJECT CASE STUDY 5

Bamboo shoot harvesting in Zhejiang province, China.  
Source: INBAR

### PROMOTING CHINESE BAMBOO SHOOTS AS TRADITIONAL GREEN FOOD

Bamboo shoots are a traditional sustainable food item in China's cuisine. At present, however, bamboo shoot processing is impacted by overuse of preservatives, water pollution, and low resource efficiency, which are pervasive throughout China's agro-food processing industry, including packaged vegetables, fruits and meat products. The project “Sustainable edible bamboo shoot value chains” aims to build a green, standardised production value-added chain for safe bamboo shoots through engaging food-processing SMEs of the provinces Zhejiang and Sichuan. Furthermore, many consumers are not aware that traditionally bamboo shoots are an eco-friendly food with nutritional value. Policy issues also include a lack of uniform quality standards for bamboo shoots farming and processing. The project will develop two new standards: one on eco-friendly bamboo shoot farming and one for SME primary processing technology.

## Enhancing communication and advocacy strategies on sustainable food systems

An effective advocacy to start with is awareness raising through small groups with influence on either policy or within the industry. Stakeholder baseline assessments are useful tools to identify key influencers of a specific sector. Involving stakeholders in participatory exercises like scenario building or roadmaps on specific food sector development in which they feel they have ownership is crucial. These approaches and processes help to create

shared visions and make people feel proud about their involvement and achievements. Especially for initiatives on local community level, which engage farming cooperatives and SMEs, these participatory approaches can be very effective. Engaging with multiple stakeholder groups, including supply chain actors, often enables identification of entry points for creating positive change.

## Outlook: Shaping the future of food and agriculture in Asia through scenario building

A number of initiatives such as the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS) are progressively using future scenario development, in this case on food security and climate change in the South East Asia region. Several scenarios and narratives have outlined possible pathways for the food and agriculture systems in the Mekong region. Furthermore, it shows how to effectively involve multi-stakeholder groups in scenario building exercises and use the results to communicate recommendations to policymakers and other stakeholders. In particular, the scenarios were used to design Cambodia's Climate Change Agriculture Plan 2014/2018.

### 10 YEAR FRAMEWORK PLAN (YFP) ON SCP AND SWITCH-ASIA PROGRAMME – MOVING AHEAD ON SUSTAINABLE AGRICULTURE AND FOOD SYSTEMS

*Under the 10-YFP an additional programme on Sustainable Agriculture and Food Systems has been initiated. This new programme which is in line with the Millennium Development Goals (MDGs) will contribute to the development and implementation of the Sustainable Development Goals (SDGs).*

*The Sustainable Agriculture and Food Systems programme will address the unsustainability of today's agricultural practices and food consumption patterns. The SWITCH-Asia Programme and grant projects are already taking the lead in demonstrating alternative approaches and improved practices in these sectors. The issue of increasing food waste will also be targeted by the upcoming 10-YFP Sustainable Agriculture and Food Systems Programme.*

## CONCLUSIONS

Three strategic project approaches are particularly relevant for SWITCH-Asia projects and initiatives for sustainable food systems in Asia:

1. **Demonstration practices and local pilot projects:** Policy changes related to agricultural subsidies or food labeling are often triggered by first demonstrating the effectiveness of alternative approaches. Ideally these practices are coupled with broad awareness and promotion campaigns, involving prominent civil society opinion leaders and media.
2. **Direct engagement with policy makers and regulators:** The development and drafting of new regulations, for instance on reducing fertilizer and pesticide use to improve the resource efficiency of agri-business SMEs, will benefit from direct inputs of practitioners.
3. **Innovative finance solutions for agri-business SMEs:** SWITCH-Asia will continue identifying options for developing appropriate lending schemes and other financial products and finding cost-effective distribution channels to reach smallholder farmers in Asia.

For more information about the work of the SWITCH-Asia Network Facility on sustainable food systems, please contact Mr. Patrick Schroeder: [network.facility@scp-centre.org](mailto:network.facility@scp-centre.org)

For more information about the SWITCH-Asia Programme see the website: [www.switch-asia.eu](http://www.switch-asia.eu)