Introduction to G.A.Ps. and Experience from SAARC countries: Introduction and Initiation

The First Meeting of Arab-GAP Stakeholders for Jordan
(13-14 Feb 2013, Amman, Jordan)

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Overview

• Introduction
• Scenario on GAP – Globally/ in Asia/ in SAARC
• GAP framework and its implementation in a country
• Project outputs of GAP implementation in SAARC countries
Introduction

- Food safety gaining increasing importance – both health & trade perspectives – also reduces losses/wastes – overall economic impact
- **Hazards** may arise at different stages of food chain right from PP
- **Preventive approaches** - Good practices – GAP/ GMP/ HACCP
- Implementing GAP during on-farm and post production processes leads to **safe agri produce while taking into account economic, social and environmental sustainability**
- GAP basically deals with GPs or **collection of principles to apply for on-farm production and post-production processes** - applicable till the farm gate.
- Implementation of GAP risen recently – **food scares, rejections, consumer demand**
- Many buyers also require GAP **certified** products
- GAP may be **Private sector or government** driven
SCENARIO ON GAP: GLOBALLY/ IN ASIA/ IN SAARC
GAP globally

- Tesco Natures Choice
- LEAF
- GAP guides
- Mexico GAP
- ChileGAP
- Kenya GAP
- Freshcare
- IndGAP
- ChinaGAP
- Japan GAP
- NZ GAP
ASEANGAP

- ASEAN GAP is a voluntary standard for ASEAN countries on production of fresh fruits & vegetables adopted in 2006.

- ASEAN GAP regulates the procedures of planting, care, harvesting & post harvest include packaging (not regulate for sprouts and fresh cut produce).

- Four modules - Food safety; environmental management; worker health, safety & welfare; produce quality.
GAP in ASEAN Countries

Thailand Q GAP (2003)

Myanmar GAP (2014)

Malaysia MyGAP (2013)

SALM (2003)

Indonesia GAP (2004)

Lao GAP (2014)

CamGAP (2010)

VietGAP (2008)

PhilGAP (2006)

Brunei GAP (2014)

Singapore GAP-VF (2004)
GAP in SAARC Countries

• **In SAARC** – no common standard adopted – countries too had not adopted National GAPs – for exports implemented GlobalGAP

• **FAO initiative**: Regional TCP - Development of Standards and scheme for GAPs Implementation and Certification in Countries of SAARC - TCP/RAS/3501

• **Objective**: to support the countries of the Region in establishing a system for GAP & its implementation

• **Countries**: All SAARC; **Pilots** - Bhutan, Bangladesh, Maldives, Nepal, Sri Lanka & Afghanistan

• **Dates**: March 2014 – June 2016 (extended till October)
Objectives of Implementing GAP

• Ensure **safe fruits & veggies** in domestic markets

• To **facilitate regional trade** through implementation of common GAP standards in the region

• To ensure **acceptability** of fruits and vegetables in **global markets**

  Through development of a credible GAP system
  
  ➢ Standard
  
  ➢ System for certification following international accreditation criteria

Addressing food safety also helps farmers including women farmers
GAP in SAARC Countries

AfghanGAP-2016 (under development)
NepalGAP (2010)
BhutanGAP (2016)
INDGAP (2016)
MGAP (2016)
SLGAP (2016)
Bangladesh GAP (2016)
GAP framework and its Implementation in a country
What does GAP Implementation Involve

- **GAP standard** – requirements to be fulfilled by the producer/farmer - different modules (food safety; quality; environment; workers health, safety and welfare)

- **Verification/Conformity Criteria** – recognizing 100% compliance not possible, requirements classified into Cr/Maj/Min, & deviations acceptable

- **Governing structure** – decision making and supervision for implementing GAP – Scheme Owner, Committee structure

- **Certification structure & process**
  - CBs operating GAP certification & complying with ISO/IEC 17065
  - procedure for evaluation, verification and certification - uniformity in certification when multiple CBs – individual farmer/ group certification

- **Accreditation Function** – Competence of CB - AB and its selection - in absence of AB, SO may perform this function - ISO/IEC 17011.

- **Rules for use of Certification Mark/Logo.**

- **Trainings**
GAP Framework & Players in a GAP system

**Scheme owner** – owns standard & scheme & logo; responsible for implementing scheme; may operate system for approval of CB or authorize AB to accredit CBs based on scheme

Accreditation Body – to testify competence of CBs – under the aegis of IAF – ABs comply with ISO 17011 – Peer evaluation – sign MRA for each scheme – ISO 17065 relevant to product/ process/service certification

CB - Evaluate process/product against specified requirements – comply with ISO 17065

Certification Body

Producer/Producer group

Implementing standards/ICS

Labs - testing of pesticide residue, microbiology, heavy metals etc and comply with ISO 17025
Decisions needed by Country

1. Whether market driven or regulatory intervention - voluntary or mandatory implementation

2. Structure to be established for implementing GAP in country

3. Decision on SO & Department/ Secretariat responsible

4. Decision on the CB – government/ private; single/ multiple

5. Decision on approving mechanism for CB – SO/AB

6. Constitution of multi-stakeholder Committees to develop and oversee operation of Scheme
Steps for Implementing GAP in Countries

1. Country GAP standard prepared
2. SO established and Scheme developed
3. CB established/ strengthened for GAP certification
4. Producers prepared for certification
5. Decision on approval system (AB/SO) - and procedures developed
6. CB approved/ accredited
7. Producers certified
GAP Standard:
Fruits & Vegetables
The Standard - Structure

• Covers - all types of production systems – conventional/hydroponics; open/controlled environment; **Excludes** - High risk (sprouts, cut f&v), Organic & GMO certification

• Five modules (4+1)
  ➢ Food safety module
  ➢ Environmental management module
  ➢ Worker health, safety & welfare module
  ➢ Produce quality module
  ➢ General requirements – common ones + Group Certification (ICS)

• First four **standalone modules** - used singly or in combination;

• Enables **progressive implementation** of modules based on country/producer priorities

• Each module has **elements** – each element has GPs - enumerating criteria/requirements
<table>
<thead>
<tr>
<th>Modules at a glance</th>
<th>Food Safety</th>
<th>Environmental management</th>
<th>Worker health, safety, welfare</th>
<th>Produce Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard requirements (Elements)</td>
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<tr>
<td>Site history &amp; Management</td>
<td>X</td>
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<tr>
<td>Planting/ Propagation Material/Root stock</td>
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<td>Genetically Modified Organisms (GMO)</td>
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<td>Fertilizers &amp; Soil additives</td>
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<td>Water (Irrigation/Fertigation)</td>
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<tr>
<td>Chemicals (Plant Protection Products/others)</td>
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<td>Harvesting and Handling Produce</td>
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<td>Traceability and recall</td>
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<td>Training</td>
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<td>Documents and records</td>
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<tr>
<td>Review of Practices</td>
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<td>Soil &amp; Substrate Management</td>
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<tr>
<td>Waste Management</td>
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<td>Energy Efficiency</td>
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<td>Biodiversity</td>
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<td>Air/noise</td>
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<td>Working conditions</td>
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<tr>
<td>Workers Welfare</td>
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<tr>
<td>Personal Hygiene (Worker health)</td>
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<tr>
<td>Quality Plan</td>
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</tbody>
</table>

FSM – 11 elements/ 92 GAPs; EMS – 13/42; WHSM – 7/35; PQM – 10/27
Verification/ Conformity Criteria

- Criteria/requirements are also known as **Control Points**
- The producer needs to comply with criteria/control points.
- Criteria categorized and compliance levels recommended:
  - **Critical** - those essential to maintain safety & integrity of produce and must be adhering to (100%)
  - **Major** – mandatory and must be followed (90%)
  - **Minor** – important but not essential depending upon the produce category (50%)
- The term “shall” used for mandatory provisions, (Critical/ major). The term “should” used for provisions categorized as “minor” or when requirement can be met by alternate means
GAP – MODULE WISE CATEGORISATION

TOTAL CRITERIA- 238
CRITICAL – 33
MAJOR - 167
MINOR - 38
Checklists

• Checklist cover each criteria or a checkpoint;

• Checklist – in tabular form, gives requirement, categorization of level of control, verification indicator for each criteria. It also has a column for comments and on the compliance status.

• May be used by either the producer (self-checks) or the auditor.

• Next slide gives some examples
Elements – Food Safety Module

The GAP for controlling food safety hazards grouped into 11 elements & includes 92 practices

- Site history & management
- Planting material
- Genetically modified organisms
- Fertilizer & soil additives
- Water
- Chemicals – agro & non agro
- Harvesting & handling produce
- Traceability and recall
- Training
- Documents & records
- Review of practices
# FOOD SAFETY MODULE

<table>
<thead>
<tr>
<th>Requirement / CP</th>
<th>Category</th>
<th>Verification Statement</th>
<th>Self / Auditor Comments</th>
<th>Compliance Status</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Site History and Management</strong></td>
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<tr>
<td>Site history assessed to identify the risk of contamination to crops grown from previous use of chemical and/or biological hazards on site or adjoining sites and the assessment documented.</td>
<td><strong>Major</strong></td>
<td>Site history assessment record</td>
<td></td>
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</tr>
<tr>
<td>Where significant risks identified, the site shall not be used for production of fresh produce without first taking some action to manage the risk</td>
<td><strong>Critical</strong></td>
<td>Records and visual evidence</td>
<td></td>
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</tr>
<tr>
<td>If remedial action is required to manage any risk, a monitoring programme shall be in place so that contamination to produce not occur and records shall be maintained.</td>
<td><strong>Critical</strong></td>
<td>Monitoring programme &amp; applicable records</td>
<td></td>
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</tbody>
</table>
Establishment of Governing Structure - Scheme Owner
Concept of Scheme and Scheme Owner

**Scheme** consist of criteria/standards to be fulfilled, conformity assessment infrastructure and process, governing structure for decision making, certification mark....

**Scheme Owner**

An organisation or body identified by country responsible for setting up and operationalizing the system/scheme in a country (to be nominated by the government of the country)
Scheme Owner (SO) - Options

- **Government**
  - Ministry directly or regulator if has agriculture in its domain (other suitable organization engaged in activities relating to agriculture especially quality issues in agriculture);
  - also referred to as Competent Authority; and
  - Positive – government endorsement of scheme automatic – incentivizing by government easier

- **Alliance /association/ inter-professional body** - collective agreement between independent economic units sharing certain objectives – some form of collective organization or group;

- **Others - NSB, Accreditation Body**; New organization may be established for setting up & implementing Scheme
Requirements of SO

• Be a **legal entity** – Govt bodies legal entity by virtue of status

• have a **mandate** for introducing, upgrading and/or internalizing quality in agriculture and/or horticulture

• ideally be a **non-profit body; no conflict of interest**

• Able to maintain **confidentiality** of information

• **Capacity and arrangements to be appropriate**, e.g. for range of activities undertaken & in geographic regions

• **Adequate arrangements** (e.g. insurance or reserves) to **cover liabilities** arising from its activities

• **Financial stability** with **adequate resources to** run Scheme

• **Capacity to maintain scheme & provide guidance** as required
Roles & Responsibilities of the SO

- Establishment of Governing Structure and decision making mechanism for implementing – SC/ TC/ CC
- Development, review, maintenance and updating the Scheme;
- Adopt a “GAP Certification Mark”/Logo and its registration
- Approve AB/ CBs to accredit/certify under scheme
- Supervision – including monitoring, evaluation – ABs, CBs, certified farmers/ groups – surveillance plan – Integrity audits
- Organise regular meetings of Committees
- Complaints and appeals handling – as per ISO 10002
- Capacity Building of resources
- Publicise/ promote scheme - transparency, understanding and acceptance
- Updating information on the SO website.
Governing Structure

Composition & TORs of Committees – Steering, Technical, Certification:

General Principles:

- **Quorum**: at least “50”% members of the Committee
- **Representation** of a balance of interests
- **Key interests** - rep. of regulatory bodies/other government agencies, NSB, user/ producers/ industry associations, AB & CB, laboratories, academic/ research, consumer organisations etc.
- **Individual experts** – avoid any conflict of interest
- **Principal/ Alternate** members

Meetings: frequency at least once in every six months.
GAP CERTIFICATION & ACCREDITATION
Certification (ISO definition)

- Third-party **attestation** related to product/ process, systems or persons
  - NOTE 1 Certification of a management system is sometimes also called registration.
  - NOTE 2 Certification is applicable to all objects of conformity assessment (CA) except for CABs themselves, to which accreditation is applicable.
- “Attestation” - the issuance of a statement based on a decision following review that fulfilment of specified requirements has been demonstrated.

Certification (Codex definition)

**Certification** is the procedure by which **official or officially recognized certification bodies** provide written or equivalent **assurance** that foods or food control systems **conform to requirements**.

Certification of food may be, as appropriate, based on a range of inspection activities which may include continuous on-line inspection, auditing of quality assurance systems, and examination of finished products.
Principles of Certification

- Impartiality
- Competence
- Confidentiality and openness
- Access to information
- Responsiveness to complaints and appeals
- Responsibility

Annex A of ISO/IEC 17000:2004
Certification Body

- A third-party CAB operating certification schemes.
- An independent entity to evaluate the compliance of producer/producer group’s GAP to the requirements (criteria) of GAP standard and certification requirements.
- Can be private/governmental/NGO - proprietorship, partnership, society, private or public limited – profit or non-profit – credibility important.
- Compliance to ISO/IEC 17065 for credibility of certification.
- Also implement additional requirements.
Additional Requirements

• Authority for decision making

• Inspector competence – degree or post secondary education in related subject – 5 years work experience in agriculture; 2 years in quality assurance – training in auditing, GAP criteria – 12 days of inspections as trainee

• No outsourcing other than testing – use of external personnel not outsourcing

• Certification Mark rules

• Website – information publicly available on CB website.

• Impartiality mechanism - Assigned specific responsibility for safeguarding the CB’s impartiality in its certification

• Market intelligence to ensure no misuse/ misinterpretation
Accreditation & Criteria to Select AB

• Accreditation process ensures that **CB certification practices are acceptable**, ie they are **competent to test & certify** third parties, behave **ethically** & employ suitable QA

• Criteria for selection
  ➢ First preference to AB of own country.
  ➢ If AB cannot set up accreditation for GAP, the SO may itself approve CB (based on ISO 17065/ additional requirements) **OR** engage foreign AB
  ➢ Factors to be considered by SO in selecting AB - member of IAF; signatory to MLA for product certification; service delivery of AB (time availability, reputation)
  ➢ The SO to maintain list of ABs meeting above requirements
  ➢ Change in AB - Country establishes own AB; SO has delivery/ other issues with AB
Logo or Certification Mark and its Usage

• The GAP certification mark or logo is a **protected mark** owned by the SO.

• There **may be more than one Mark(s)** approved by SO - distinct for each standard/ criteria used by SO for certification.

• All certified producer or producer groups approved by SO of a country are eligible to use the Scheme Certification Mark – need **formal approval** by SO.

• The Mark to be used in a manner that implies that farm produce has been produced using good practices. It shall not imply that the produce itself is certified i.e. **not be applied on produce**.

• SO shall frame the rules for use of certification mark.
PROJECT OUTPUTS OF GAP IMPLEMENTATION IN SAARC COUNTRIES
Outputs Delivered for SAARC Region

- **A Scheme and training manual** on Good Agriculture Practices for Fruits & Vegetables
  - Volume 1 The Scheme
  - Volume 2 Training manual

- **GAP System** developed in **identified countries** (Bhutan, Bangladesh, Maldives and Nepal + Sri Lanka + Afghanistan) – standards and certification

- Scheme owner, certification body staff and others **trained** and stakeholders made **aware** of system

- Pilot farms + validation by testing (limited)
Structure of GAP Scheme

- **Part I** - GAP standard for fruits and vegetables

- **Part II** Establishing national implementation structure for GAP
  - Section 1 – Options and structure for implementing GAP
  - Section 2 - Guidance for establishing a Scheme Owner
  - Section 3 – Rules for use of certification mark.

- **Part III** Certification and accreditation for GAP
  - Section 1 – Certification criteria (basis standards & CB reqts)
  - Section 2 – Certification Process
  - Section 3 – Requirements for Certification Bodies
  - Section 4 - Rules for Accreditation Bodies for GAP.

- **Annexes** – Documentation needed under the GAP scheme – Producer and producer group; SO, CB, AB
Structure of the Manual (5 Modules, 18 Sessions)

Module I Introduction to GAP
- Session 1 Background to food safety and introduction to GAP
- Session 2 Different GAP standards – GlobalG.A.P./ other GAPs

Module II The GAP standards/requirements
- Session 3 An overview of GAP standard - structure, requirements and conformity criteria
- Session 4 Food safety module
- Session 5 Environmental management module
- Session 6 Workers’ health, safety and welfare module
- Session 7 Produce quality module
- Session 8 General requirements module (incl. group controls)
- Session 9 GAP verification criteria, control points & checklists

Module III Establishment of national implementation systems
- Session 10 Options & structure for impl GAP in a country
- Session 11 Guidelines for establishing a Scheme Owner

Module IV GAP certification and accreditation
- Session 12 Importance of GAP certification and accreditation
- Session 13 Criteria for selection of an AB for GAP
- Session 14 Establishment of a CB for GAP
- Session 15 GAP certification process
- Session 16 Auditing and auditing techniques

Module V Preparing a farmer/producer or producer group for GAP
- Session 17 Preparing a farmer/ groups for implementing GAP
- Session 18 The application and approval process
Development of draft scheme - FAO

Inception WS – pilot countries

Trainings in country – 3 groups (SO/CB, auditors, stakeholders

Finalizing regional documents

Mar '14

Sept '14 – Mar '15 2015-16

May '16

Regional inception WS - scheme discussed, pilots selected

Support pilot countries set up national infrastructure

Study visit to India

Regional Concluding workshop
THANK YOU

Any Questions?