The green wastelands of Asia

Presentation to CABI Regional Consultation

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Invasives: Green wastelands

The problem

- Displacing people and crops
- Affecting food security, livelihoods and health
- Borders not respected
- Response is often nationally-focussed and not multi-sector

The solution

- Regional coordination of stakeholders to support approaches to:
- *Prevent / Detect early and eradicate / Mitigate*

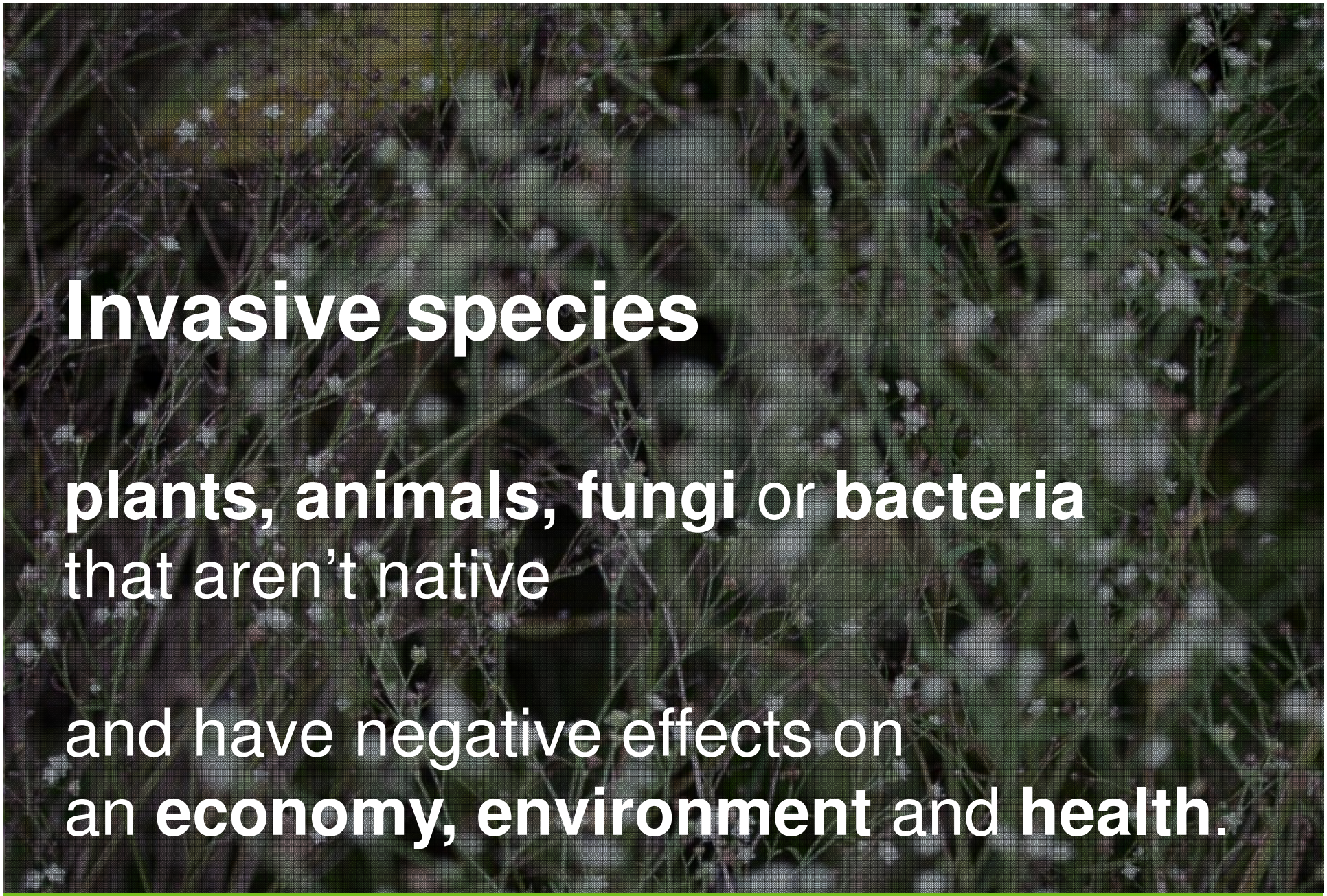
The ask

- We are seeking your mandate for action
- Key elements for a regional Invasive Species Management Strategy, with donor support
- How can you help?

What could CABI do to deliver?

- 'Plantwise' partnership approach to implement IPM-/Biocontrol options at scale
- Develop tools, policies, etc? What is important for you?

Why does it matter…….?


Invasive species
plants, animals, fungi or bacteria
that aren't native
and have negative effects on
an economy, environment and health.

THE PROBLEM

Trialeurodes vaporariorum

Liriomyza sativae

Plutella xylostella

Tetranychus urticae

THE PROBLEM

Ampullariidae

Mikania micrantha

Salvinia molesta

Parthenium hysterophorus

The costs: A global problem…

Loss to the world economy as a result of invasive non-native species is estimated at 5% of annual production

…a local tragedy

Across Southeast Asia:

- Total annual losses to crop production from invasive insects, pathogens and weeds amount to $21bn across the region
- In Vietnam, Thailand and Myanmar alone, Golden Apple Snail (GAS) and the weed, *Mimosa pigra* threaten rice production and leaf miners, whiteflies and other species cause major losses to vegetables
- In just Vietnam and Thailand, GAS causes annual losses of $74.8m to rice production

The food security and incomes of >45m farming families are being threatened in these three countries alone.

The costs: A global problem, a local tragedy

For people like Peace

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Syed Rashdan, living with
Red Spider Mite
“The Red Spider Mite has become a serious issue for us strawberry farmers. The affected plants are producing smaller fruits, which are not marketable. We have to regularly spray pesticides to control the mites.”


Nor Azhan Marnun, living with
Golden Apple Snail
“The snail is really affecting my life because I waste so much time controlling it. It is costing me a lot of money in pesticides. Sometimes when there’s a high infestation of snails, I even have to plant all over again which is also a big loss for me.”


Hj Hassan bin Awing,
living with **Mikania**
“I have to control it every week. Sometimes, when I use a brush cutter it gets stuck in the weed so I have to remove it by hand, which takes a lot of time. If I didn’t have problems with this weed I could use my money to send my kids to school and feed my family.”

The solution

Invasive species can be:

- prevented
- identified before they establish
- controlled

CABI's vision

To stop the world's worst invasive species undermining the livelihoods of 50 million farming families

Why CABI?

- Mile-a-minute weed, *Mikania micrantha*, threatened smallholders and forests in China, Taiwan, Fiji, PNG and India but recent releases of a host specific biocontrol have reduced weed cover from 100% to 40% in East Asia and the Pacific
- Cassava mealybug threatened the food security of >200 million in Africa. Biocontrol reduced mealybug by 95%. cost:benefit 1:149
- Mango mealybug control in West & Central Africa increasing fruit production by 142% with cost:benefit 1:145
- Rubbervine control in Australia saving a world heritage ecosystem cost:benefit 1:108
- Recent series of GEF funded projects in South East Asia, Caribbean and East Africa

10 invasives / 10 countries

We propose seeking donor investment to improve livelihoods by implementing a programme which will:

- Develop national and regional linkages to facilitate a **systematic approach** to Invasive species management
- **Create and share knowledge** to enable countries to identify, prevent and manage threats
- **Develop best management plans** to address 10 of the world's worst invasives (Phase I)

CABI Invasive Species Strategy: Building the case

- Engage with Member Countries to secure your mandate and active support – starts today!
- Convene stakeholders to agree action plans
- Evidence: quantify the spread and impact
- Assign institutional roles and responsibilities to ensure a ***systematic approach*** to invasive species management (at a national and regional level)
- Utilise the proven Plantwise approach

CABI Invasive Species Strategy: Action plan, stage 1 – *Prevention*

- Define key users and stakeholders (Institutions, front-line personnel)
- What are their needs-gaps, and skillsets?
- What tools should CABI develop in support?
- How can they be coordinated regionally to stop invasive pests from arriving?

The action plan, stage 2: *Early detection and eradication*

Providing a system which enables detection and rapid response to new invaders, e.g.

- Sentinel systems: Plantwise, plus other national mechanisms?
- Mobile messages to raise awareness
- Extension materials and support – what's needed?
- Consultancy and networks: Role for a CABI centre of excellence?
- Image bank, for in-field identifications
- Crowd sourcing as method of local reporting – leverage Asia's heavy use of social networking?

The action plan, stage 3: *Mitigation*

Controlling established invasives, e.g.

- Discussion documents outlining control options: costs, risks and benefits, drawing on case studies from elsewhere. Anything else?
- CABI Consultancy service to roll out implementation of selected management strategies?
- Information materials to support implementation of appropriate controls

A global programme…

Focussing on 10 of Asia and Africa's worst (phase 1)

***Proposed* Species**	**Type**
Prosopis spp.	Plant
Mimosa spp.	Plant
Opuntia spp.	Plant
Parthenium hysterophorus	Plant
Lantana camara	Plant
Tuta absoluta	Insect
Liriomyza	Insect
Larger Grain Borer	Insect
Oriental fruit fly	Insect
Maize lethal necrosis	Disease

Starting the debate

- **To discuss:** What are the key issues to address: What are the gaps, nationally and regionally, and which Invasives are your main concern?
- **To agree:** How can we work together to have an impact?
- **Up next:** How have invasive species impacted us?

Assalamualikum शुक्रिया xie-xie kiitos
merci zikomo efharistó
ありがとう thank you gracias
asante sana tak ke itumetse zikomo
danke urakoze terima kasih dhanyawaad

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